

**SUBMISSION CASE NARRATIVE
NDMA**

MAXXAM L.I.M.S. No. A318878

PROJECT: Applied P&CH Laboratory NDMA Analysis

I. Receipt

Samples were received at Maxxam on May 29, 2003.
Samples were received in good condition.

II. Holding Times

- A. Sample preparation: all holding times were met.
- B. Sample analysis: all holding times were met.

III. Method

The method followed was Maxxam's in-house method for NDMA analysis,
Entitled "EXTRACTION & ANALYSIS OF NITROSAMINES AND
NDMA BY HRMS" SOP # TO.1021.08.

IV. Preparation

Sample preparation proceeded normally. Samples were extracted on
June 3, 2003.

V. Analysis

Analysis proceeded normally. Samples were analyzed on
June 6, 2003.

- A. Calibration: All criteria were met.
- B. Mass Resolution: All criteria met.

000001

- C. Method Blank: All acceptance criteria were met for the method blank and no detects have been observed above the MDL.
- D. Laboratory Control Spike: A LCS and LCSDUP were analyzed with all acceptance criteria met and they had a RPD of 4%.
- E. Matrix spike/Matrix spike duplicate: MS and MSD were analyzed not analyzed with these samples.
- F. Surrogate Standards: All samples and QC samples met surrogate Standard criteria
- G. Samples: Sample analysis proceeded normally.
- H. Glass blank: All acceptance criteria for the glass blank were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Maxxam Analytics Inc., both technically and for completeness, except for any conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the HRMS Strategic Business Unit Operational Manager, as verified by the following signature.



AnnMarie Wright
Laboratory Operations Manager

This report contains 96 pages.

00002

SUMMARY OF SAMPLES SUBMITTED-NDMA						
(YYYY/MM/DD)		MAXXAM L.I.M.S. ID	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED
JPL	SAMPLE NO.					ASSOCIATED QC LABEL
MW-13	A318878-A19423	2003/05/27	2003/05/29	2003/06/03	2003/06/06	481743
MW-16	A318878-A19424	2003/05/27	2003/05/29	2003/06/03	2003/06/06	481743

000003

Glossary of Definitions

NDMA	N-Nitrosodimethylamine
OPR	Ongoing Performance & Recovery Standard (Matrix spike)
PAR	Performance & Recovery Standard (Spiking Mixture)
IPR	Initial Performance & Recovery Standard (Matrix spike)
K-D	Kuderna-Danish concentrator; a device used to concentrate the analytes in a solvent
LIMS	Laboratory Information Management System
MISA	Municipal Industrial Strategy for Abatement
EPA	see USEPA
USEPA	United States Environmental Protection Agency
CEPA	Canadian Environmental Protection Agency
amp	ampere
cm	centimetre
g	gram
h	hour
ID	internal diameter
OD	outside diameter
In.	inch
L	litre
M	Molecular ion
min	minute
mL	mililitre
mm	millimetre
m/z	mass-to-charge ratio
N	Normal; gram molecular weight of solute divided by hydrogen equivalent of solute, per litre of solution
mg	milligram 10^{-3} g
μ g	microgram 10^{-6} g
ng	nanogram 10^{-9} g
pg	picogram 10^{-12} g
fg	femtogram 10^{-15} g
ppm	parts per million (mg/L, mg/kg)
ppb	parts per billion (μ g/L, μ g/kg)
ppt	parts per trillion (ng/L, ng/kg)
ppq	parts per quadrillion (pg/L, pg/kg)
v/v	volume per unit volume
w/v	weight per unit volume
DCM	Dichloromethane (Methylene Chloride)
PFK	Perfluorokerosene
Hires	High Resolution
GC	Gas Chromatography

MS	Mass Spectrometry
HRMS	High Resolution Mass Spectrometry

Acceptance Criteria

Values used by the laboratory in order to determine that a process is in control.

Accuracy It is the degree of agreement of a measured value with the true or expected value of the quantity of concern.

Analyte A Nitrosodimethylamine and/or 1,4-Dioxane parameter tested by a method.

Blind Sample It is a sample submitted for analysis whose composition is known to the submitter but unknown to the analyst. A blind sample is used to test the proficiency of a measurement process.

Calibration Standard (CAL)

Consist of a set of solutions containing known amounts of native & carbon-13-labelled NDMA and/or 1,4-Dioxane. These solutions are used to establish the relationship between the parameter's concentration & MS detector response over the expected range of sample concentration.

Calibration Verification Material

Consists of a calibration standard solution of intermediate level concentration (e.g. CS3), used to assess whether the initial calibration is still valid.

Certified Reference Material

It is a stable, homogenous, and well characterized reference material, one or more of whose property values are certified by repetitive analysis by several operators & different methodologies in one or more qualified laboratories of known precision & accuracy. This material is used to assess the accuracy of a measurement process.

CAS# Chemical Abstracts Compound Registry Number.

Control Sample

It is a reference material of known composition that is analyzed concurrently with test samples to evaluate the accuracy and/or precision of a measurement process.

EDL Estimated detection limit or detection limit.

Glassware Proof Rinse

It is the composite final solvent rinse of each piece of glassware intended for use in processing a batch of samples. Proof rinse samples are analyzed before sample processing begins.

Instrument Detection Limit

It is the smallest concentration/amount of analyte, in a solution containing only the analyte(s) of interest, which produces an instrumental response that satisfies all analyte detection & identification criteria.

IS

Internal Standard, a deuterated or ¹³C-labelled analyte that is added to a sample extract prior to instrument analysis.

Isomer

A member of a group of compounds that differ from each other only in terms of locations of a specified number of common substituent atoms, or groups of atoms, on the parent compound.

Method Blank Laboratory control sample using reagents, purified water, soil or relevant matrix known to be free of contaminants.

Method Detection Limit (MDL)

It is the smallest test sample concentration/amount of analyte that produces an instrumental response that satisfies all analyte detection & identification criteria when the sample is processed & analyzed according to the requirements of a specific test method. Reported MDL values reflect the composite effect of sample-related variables as well as method-related variables.

MSDS

Material Safety Data Sheet

NIOSH

National Institute of Occupational Safety & Health

Precision

It is the degree of agreement between the data generated from repetitive measurements under specified conditions. It is generally reported as the standard deviation (SD) or relative standard deviation (RSD).

%D

Percent Difference.

Quality Assurance (QA)

It is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality. The system consists of two separate but related activities, quality control & quality assessment.

Quality Control (QC)

It is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of users.

Recovery Standards

They are selected compounds that are added to sample extracts immediately before instrumental analysis so that surrogate (internal standard) recoveries can be calculated.

RPD (%) Relative Percent Difference.

Relative Retention Factor (RRF)

It is the quotient of a target analyte response factor (instrument response per unit weight) divided by the response factor (RF) for its corresponding labelled surrogate. An RRF value remains constant over the range of concentration for which instrument response is linear.

RSD Relative Standard Deviation.

SDS Soxhlet/Dean-Stark extractor, an extraction device applied to the extraction of solid & semi-solid materials.

Spiked blank Laboratory control sample that has been fortified with native analytes of interest.

Stock Solution A solution containing an analyte that is prepared using a reference material traceable to EPA, the National Institute of Science & Technology (NIST), or a source that will attest to the purity & authenticity of the reference material.

Surrogate A compound whose composition and chemical properties are nearly identical to those of target analytes, but which is distinguishable from target analytes by some means of detection (i.e. MS). These include deuterated or ¹³C-labelled analogues of the target analytes, which are added to the sample prior to extraction or clean-up steps.

Window Defining Mixture

It is a solution containing the earliest & latest eluting congeners within each homologous group of target analytes on a specified GC column.

SAMPLE DATA

000008

MW-13

Lab Name	Maxxam Analytics Inc.		
Matrix (soil/water):	water		
Sample wt/vol:	960	(g/mL)	mL
Level (low/med)	low		
% Moisture	Not applicable	Decanted (Y/N):	N
Concentrated Extract Volume	1000	(uL)	
Injection Volume	2	(uL)	
Acid Wash Cleanup (Y/N):	N	pH	Not analyzed
Lab Sample ID:	A318878-A19423		
Project Name:	JPL		
Lab File ID:	KR23600016		
Date Received:	May 29, 2003		
Date Extracted:	June 3, 2003		
Lab Batch:	481743		
Date Analyzed:	June 6, 2003		
Calib. Ref.:	20030605		
Time Analyzed:	12:12:17		
Dilution Factor:	1		

CAS No.	Compound	Conc. (ug/L)	Qualifier	EDL (ug/L)	RL (ug/L)
62-75-9	NDMA	0.000760	J	0.000370	0.00200
	Surrogate	Recovery (%)	Acceptance Criteria (%)		
000	D6-NDMA	18	10-85		

000009

Quantify Sample Report

Printed: Fri Jun 06 13:40:30 2003, Page 1 of 5

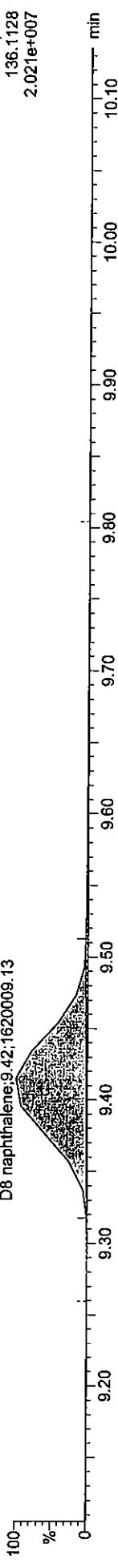
Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\Jobs\A318878.qld, Time: Fri Jun 06 13:39:58 2003

Method: C:\MASSLYNX\Default\pro\METHDB\nitros_ET.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default\pro\CURVEDB\nitrocal_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600016.*; Date: 06-Jun-2003, Time: 12:12:17, Job: , Description: 481743,A19423-01R,N,1,2

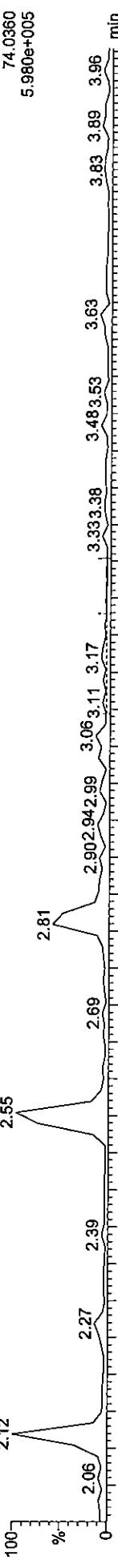
D8 naphthalene

kr23600016 Smooth(Mn,3x1)



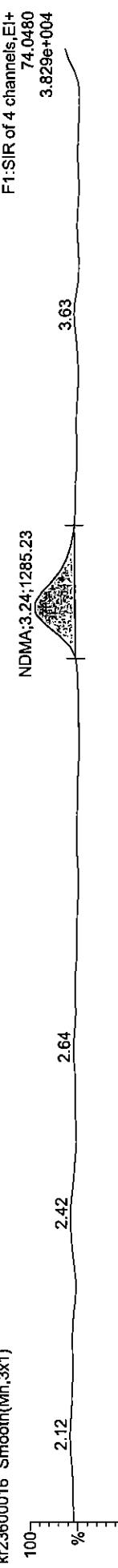
propyl ester

kr23600016 Smooth(Mn,3x1)



NDMA

kr23600016 Smooth(Mn,3x1)



D6 NDMA

kr23600016 Smooth(Mn,3x1)

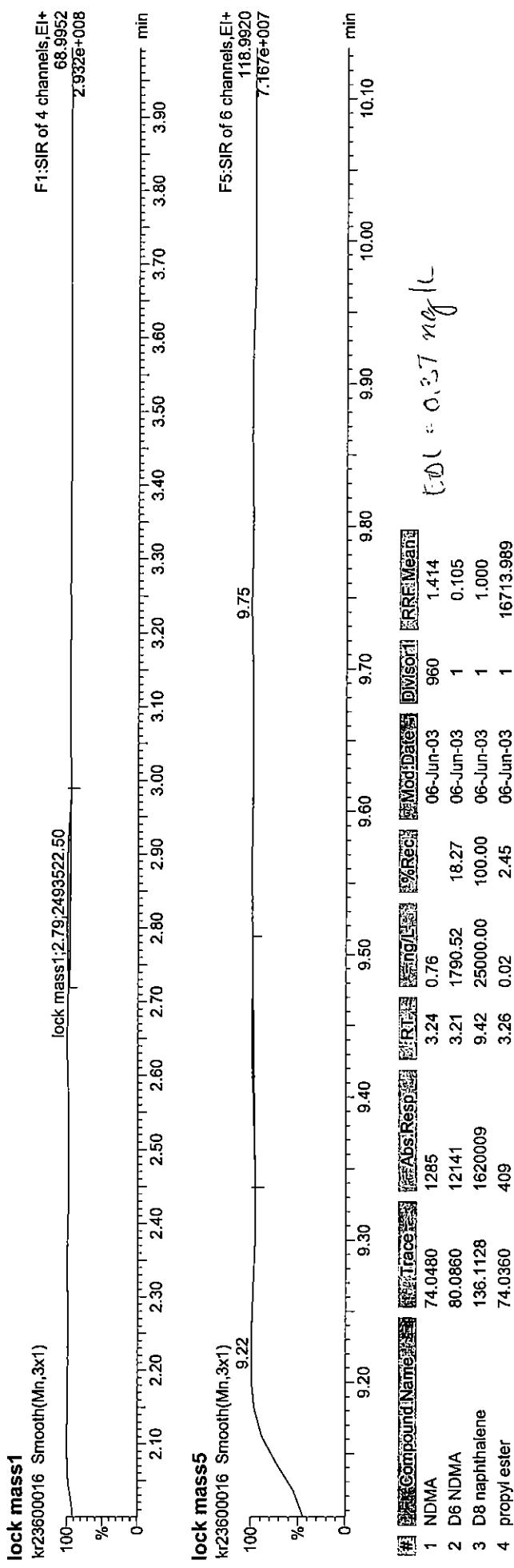


000010

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\Jobs\A318878.qld, Time: Fri Jun 06 13:39:58 2003

Printed: Fri Jun 06 13:40:30 2003, Page 2 of 5



000011

MW-16

Lab Name	<u>Maxxam Analytics Inc.</u>		
Matrix (soil/water):	<u>water</u>		
Sample wt/vol:	<u>990</u>	(g/mL)	<u>mL</u>
Level (low/med)	<u>low</u>		
% Moisture	<u>Not applicable</u>	Decanted (Y/N):	<u>N</u>
Concentrated Extract Volume	<u>1000</u> (uL)		
Injection Volume	<u>2</u>	(uL)	
Acid Wash Cleanup (Y/N):	<u>N</u>	pH	<u>Not analyzed</u>

Lab Sample ID:	<u>A318878-A19424</u>
Project Name:	<u>JPL</u>
Lab File ID:	<u>KR23600017</u>
Date Received:	<u>May 29, 2003</u>
Date Extracted:	<u>June 3, 2003</u>
Lab Batch:	<u>481743</u>
Date Analyzed:	<u>June 6, 2003</u>
Calib. Ref.:	<u>20030605</u>
Time Analyzed:	<u>12:31:08</u>
Dilution Factor:	<u>1</u>

CAS No.	Compound	Conc. (ug/L)	Qualifier	EDL (ug/L)	RL (ug/L)
62-75-9	NDMA	0.00200	U	0.000370	0.00200
	Surrogate	Recovery (%)	Acceptance Criteria (%)		
000	D6-NDMA	17	10-85		

000012

Quantify Sample Report

Printed: Fri Jun 06 13:40:30 2003, Page 3 of 5

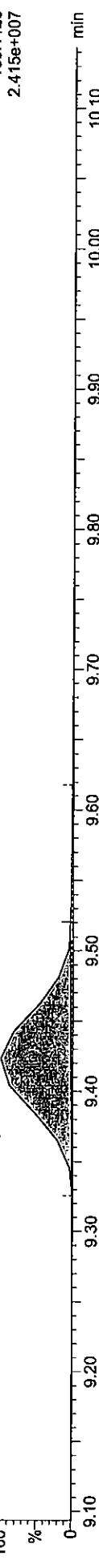
Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\Jobs\A318878.qld, Time: Fri Jun 06 13:39:58 2003

Name: kr23600017.*, Date: 06-Jun-2003, Time: 12:31:08, Job: , Description: 481743,A19424,N,1,2

D8 naphthalene

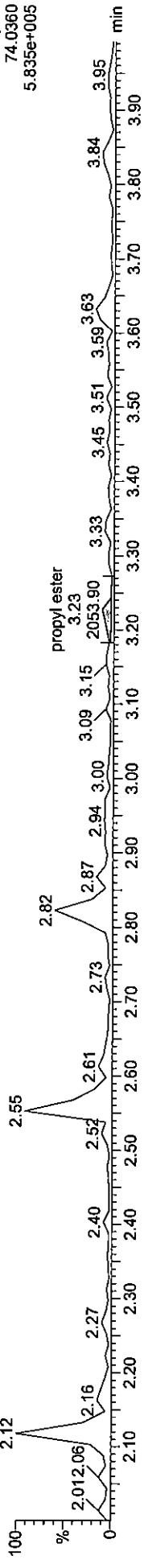
kr23600017 Smooth(Mn,3x1)

D8 naphthalene 9.42;1900927.88



propyl ester

kr23600017



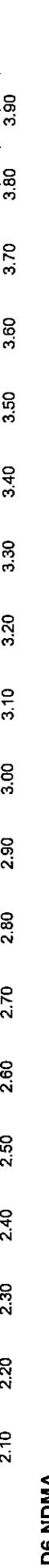
NDMA

kr23600017 Smooth(Mn,3x1)



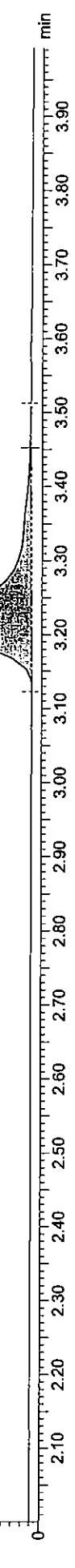
D6 NDMA

kr23600017 Smooth(Mn,3x1)



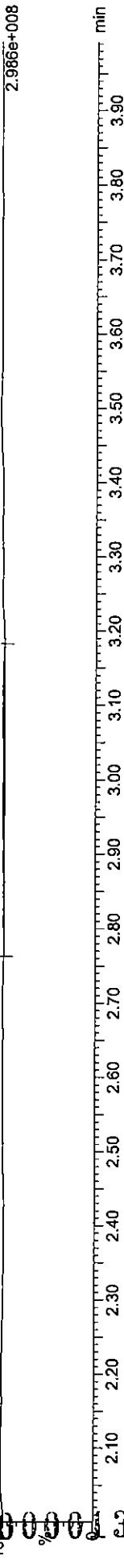
lock mass1

kr23600017 Smooth(Mn,3x1)



F1:SIR of 4 channels, EI+

kr23600017 Smooth(Mn,3x1)



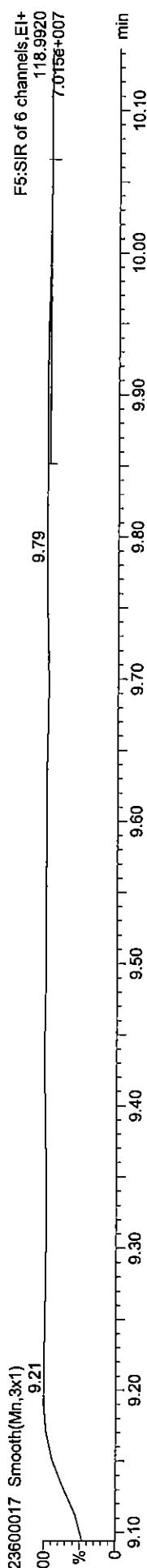
Quantify Sample Report

Printed: Fri Jun 06 13:40:30 2003, Page 4 of 5

Dataset: C:\MASSLYNX\Default.pro\Quan\lynxFiles\Jobs\A318878.qld, Time: Fri Jun 06 13:39:58 2003

lock mass5

kr23600017 Smooth(Mn,3x1)
9.21



#	Compound Name	Trace	Abs Response	Int	%Int	Mod Date	Divisor	ERR/Mean	
1	NDMA	74.0480	512	3.24	-0.27-11.0	06-Jun-03	990	1.414	
2	D6 NDMA	80.0860	13442	3.21	1689.46	17.24	06-Jun-03	1	0.105
3	D8 naphthalene	136.1128	1900928	9.42	25000.00	100.00	06-Jun-03	1	1.000
4	propyl ester	74.0360	2054	3.23	0.12	12.29	06-Jun-03	1	16713.989

000014

LABORATORY BLANK

000015

WATER LABORATORY METHOD BLANK

Lab Name	Maxxam Analytics Inc.		
Matrix (soil/water):	water		
Sample wt/vol:	1000	(g/mL)	mL
Level (low/med)	low		
% Moisture	Not applicable	Decanted	N
Concentrated Extract Volume	1000	(uL)	
Injection Volume	2	(uL)	
Acid Wash Cleanup (Y/N):	N	pH	Not analyzed
Lab Sample ID:	A318878-481743B		
Project Name:	JPL		
Lab File ID:	KR23600013		
Date Received:	Not applicable		
Date Extracted:	June 3, 2003		
Lab Batch:	481743		
Date Analyzed:	June 6, 2003		
Calib. Ref.:	20030605		
Time Analyzed:	11:15:47		
Dilution Factor:	1		

CAS No.	Compound	Conc. (ug/L)	Qualifier	EDL (ug/L)	RL (ug/L)
62-75-9	NDMA	0.00200	U	0.000370	0.00200
	Surrogate	Recovery (%)		Acceptance Criteria (%)	
000	D6-NDMA	24		10-85	

000616

Quantify Sample Report

Printed: Fri Jun 06 13:14:15 2003, Page 1 of 5

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Blks_Spks\20030603\blks_20030603.qd, Time: Fri Jun 06 13:12:57 2003

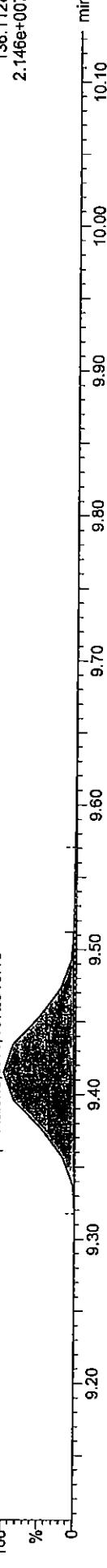
Method: C:\MASSLYNX\Default\pro\METHDB\nitros_EI.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default\pro\CURVEDBNitroscall_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600013.*, Date: 06-Jun-2003, Time: 11:15:47, Job: , Description: 481743,blank,N,1,2

D8 naphthalene

kr23600013 Smooth(Mn,3x1)

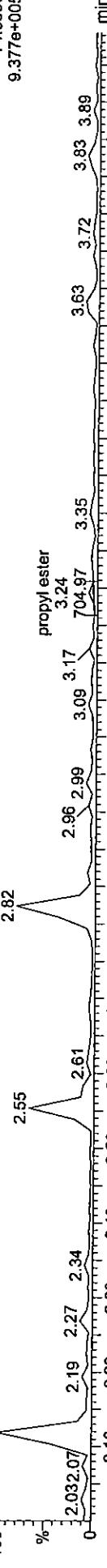
100%
%



propyl ester

kr23600013 Smooth(Mn,3x1)

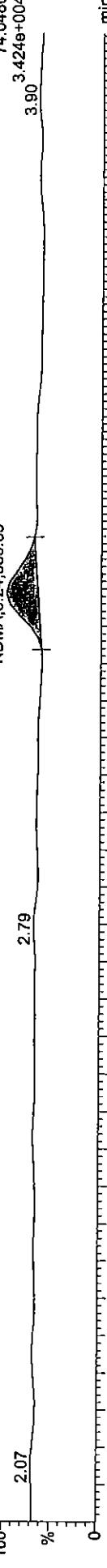
100%
%



NDMA

kr23600013 Smooth(Mn,3x1)

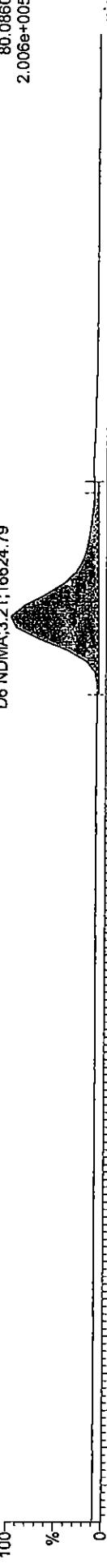
100%
%



D6 NDMA

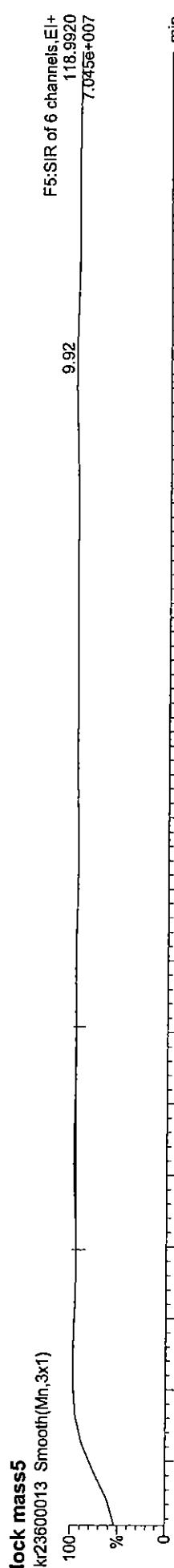
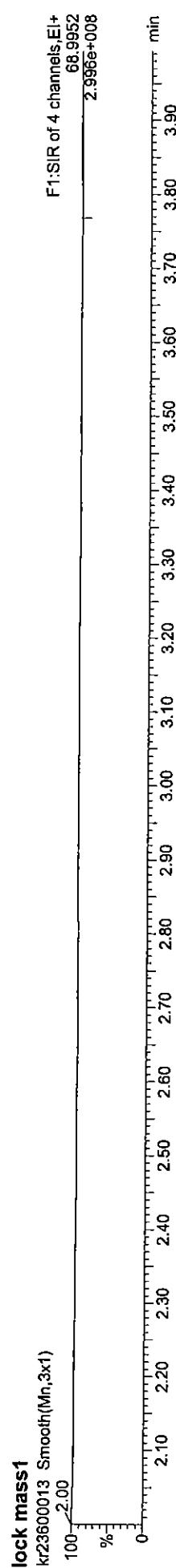
kr23600013 Smooth(Mn,3x1)

100%
%



000017

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Blks_Spkst20030603\blk.s. 20030603.qld, Time: Fri Jun 06 13:12:57 2003



	Constituent	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
1	NDMA	74.0480	840	3.24	<0.35	1.00	06-Jun-03	1000	1.414
2	D6 NDMA	80.0860	16625	3.21	2374.37	24.23	06-Jun-03	1	0.105
3	D8 naphthalene	136.1128	1672848	9.41	25000.00	100.00	06-Jun-03	1	1.000
4	propyl ester	74.0360	705	3.24	0.04	4.22	06-Jun-03	1	16713.989

1

000018

LABORATORY CONTROL SAMPLE

000019

WATER LABORATORY SPIKED BLANK

Lab Name	Maxxam Analytics Inc.		
Matrix (soil/water):	water		
Sample wt/vol:	1000	(g/mL)	mL
Level (low/med)	low		
% Moisture	Not applicable	Decanted (Y/N):	N
Concentrated Extract Volume	1000	(uL)	
Injection Volume	2	(uL)	
Acid Wash Cleanup (Y/N):	N	pH	Not analyzed
Lab Sample ID:	A318878-481743S		
Project Name:	JPL		
Lab File ID:	KR23600011		
Date Received:	Not applicable		
Date Extracted:	June 3, 2003		
Lab Batch:	481743		
Date Analyzed:	June 6, 2003		
Calib. Ref.:	20030605		
Time Analyzed:	10:38:09		
Dilution Factor:	1		

CAS No.	Compound	LCS Conc.(ug/L)	Spike Level (ug/L)	Recovery (%)	Acceptance Criteria (%)
62-75-9	NDMA	0.00577	0.00500	115	10-173
	Surrogate	Recovery (%)		Acceptance Criteria (%)	
000	D6-NDMA	25		10-85	

000020

Quantify Sample Report

Printed: Fri Jun 06 12:55:17 2003, Page 1 of 5

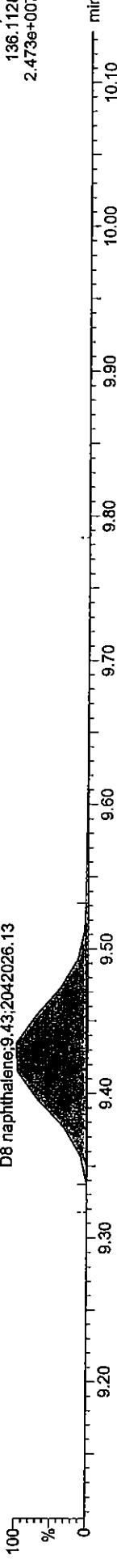
Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Blks_Spkss\20030603\spks_20030603.qid, Time: Fri Jun 06 12:53:11 2003

Method: C:\MASSLYNX\Default.pro\METHDB\Nitros_EI.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\Nitrocali_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600011.*, Date: 06-Jun-2003, Time: 10:38:09, Job: , Description: 481743,spike,N,1,2

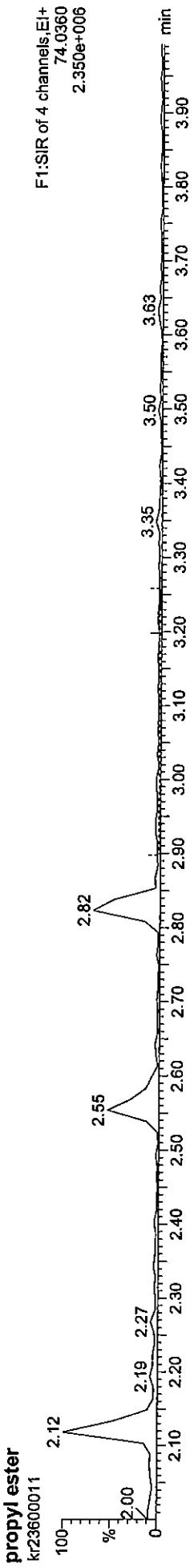
D8 naphthalene

kr23600011 Smooth(Mn,3x1)



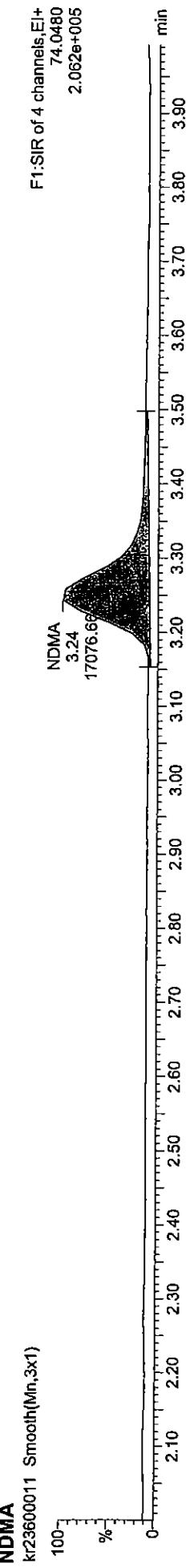
propyl ester

kr23600011 Smooth(Mn,3x1)



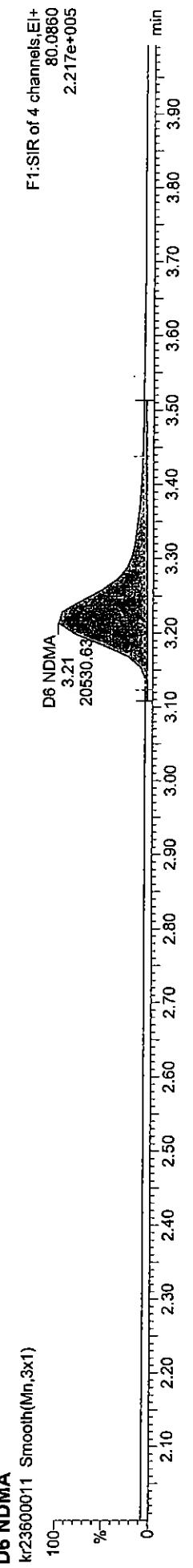
NDMA

kr23600011 Smooth(Mn,3x1)



D6 NDMA

kr23600011 Smooth(Mn,3x1)



000021

Quantify Sample Report

Printed: Fri Jun 06 12:55:17 2003, Page 2 of 5

Dataset: C:\MASSLYNX\Default,pro\QuanlynxFiles\QC\Blks_Spkss\20030603\spks_20030603.qld, Time: Fri Jun 06 12:53:11 2003



SampleID	Name	RT	ABER	PERC	RTDIF	RTSTD	RTNSTD	DIAG	PERCMEAN
1	NDMA	74.0480	17077	3.24	5.77	115.32	06-Jun-03	1000	1.414
2	D6 NDMA	80.0860	20531	3.21	2402.09	24.51	06-Jun-03	1	0.105
3	D8 naphthalene	136.1128	2042026	9.43	25000.00	100.00	06-Jun-03	1	1.000
4	propyl ester	74.0360	1492	3.21	0.09	8.92	06-Jun-03	1	16713.989

14

000022

WATER LABORATORY SPIKED BLANK DUPLICATE

Lab Name	Maxxam Analytics Inc.		
Matrix (soil/water):	water		
Sample wt/vol:	1000	(g/mL)	mL
Level (low/med)	low		
% Moisture	Not applicable	Decanted (Y/N):	N
Concentrated Extract Volume	1000	(uL)	
Injection Volume	2	(uL)	
Acid Wash Cleanup (Y/N):	N	pH	Not analyzed
Lab Sample ID:	A318878-481743SD		
Project Name:	JPL		
Lab File ID:	KR23600012		
Date Received:	Not applicable		
Date Extracted:	June 3, 2003		
Lab Batch:	481743		
Date Analyzed:	June 6, 2003		
Calib. Ref.:	2003D605		
Time Analyzed:	10:56:58		
Dilution Factor:	1		

CAS No.	Compound	LCSD Conc.(ug/L)	Spike Level (ug/L)	Recovery (%)	%RPD LCS/LCSD	Acceptance Criteria (%)
62-75-9	NDMA	0.00553	0.00500	111	4	25
	Surrogate	Recovery (%)		Acceptance Criteria (%)		
000	D6-NDMA	30		10-85		

000023

Quantify Sample Report

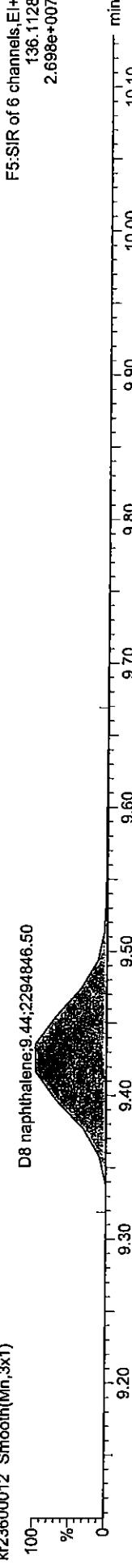
Printed: Fri Jun 06 12:55:17 2003, Page 3 of 5

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Blks_Spkst20030603spks_20030603.qld, Time: Fri Jun 06 12:53:11 2003

Name: kr23600012.* Date: 06-Jun-2003, Time: 10:56:58, Job: , Description: 481743,spike,D,1,2

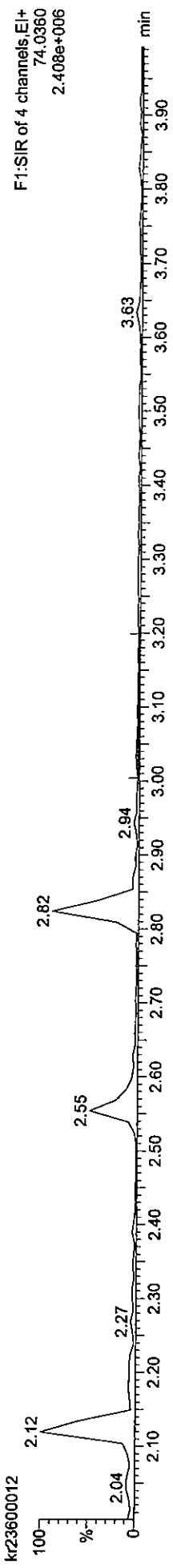
D8 naphthalene

kr23600012 Smooth(Mn,3x1)



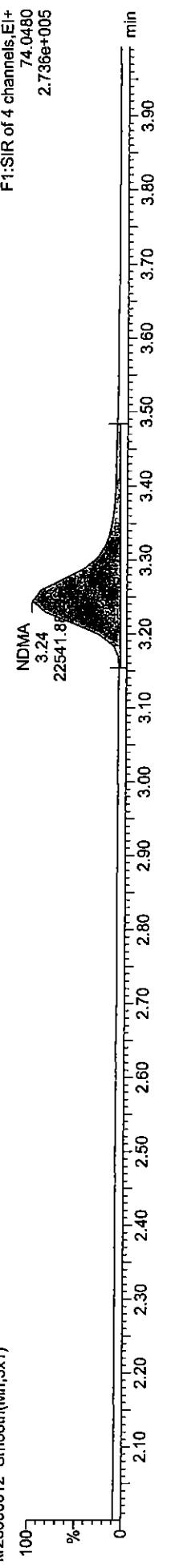
propyl ester

kr23600012 Smooth(Mn,3x1)



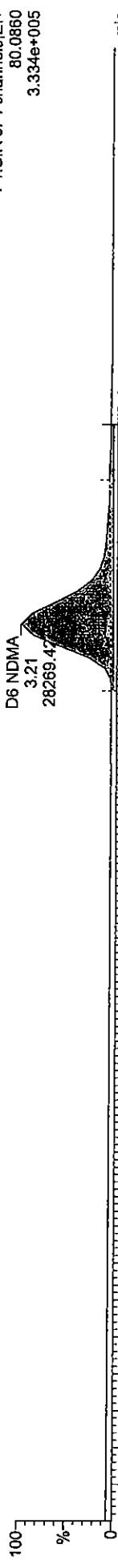
NDMA

kr23600012 Smooth(Mn,3x1)



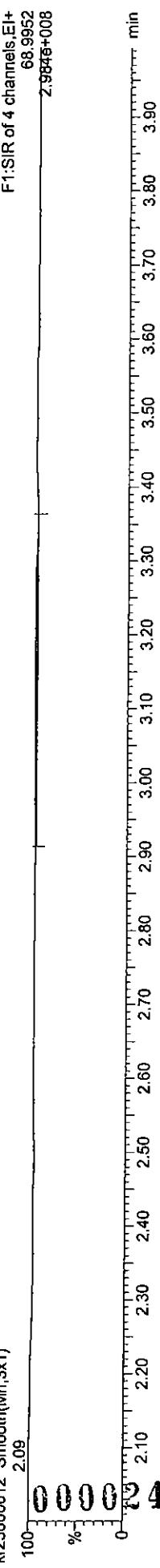
D6 NDMA

kr23600012 Smooth(Mn,3x1)



lock mass1

kr23600012 Smooth(Mn,3x1)



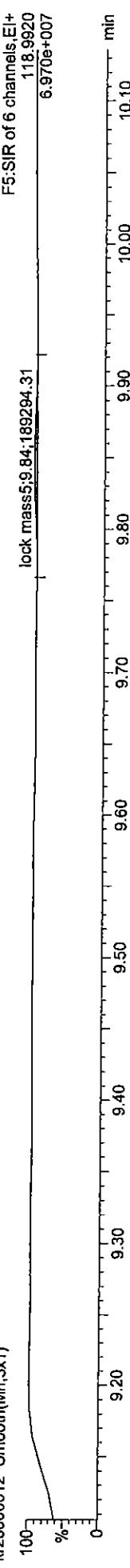
Quantify Sample Report

Printed: Fri Jun 06 12:55:17 2003, Page 4 of 5

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Blks_Spks\20030603\spks_20030603.qd, Time: Fri Jun 06 12:53:11 2003

lock mass5

kr23600012 Smooth(Mn,3x1)



Calculated Name	Exact Mass	Relative Abundance	Retention Time						
1 NDMA	74.0480	22542	3.24	5.53	110.55	06-Jun-03	1000	1.414	
2 D6 NDMA	80.0860	28269	3.21	2943.14	30.03	06-Jun-03	1	0.105	
3 D8 naphthalene	136.1128	2294847	9.44	25000.00	100.00		1	1.000	
4 propyl ester	74.0360	6034	3.03	0.36	36.10		1	16713.989	

000025

GLASS BLANK

000026

Quantify Sample Report

Printed: Fri Jun 06 13:14:15 2003, Page 3 of 5

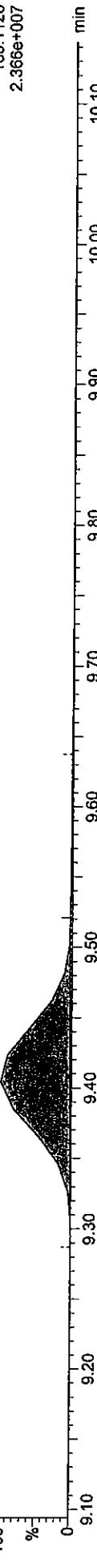
Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Blks_Spks\20030603\blk\20030603.qid, Time: Fri Jun 06 13:12:57 2003

Name: kr23600014.*; Date: 06-Jun-2003, Time: 11:34:35, Job: , Description: glass blank,20030603.N,1,2

D8 naphthalene

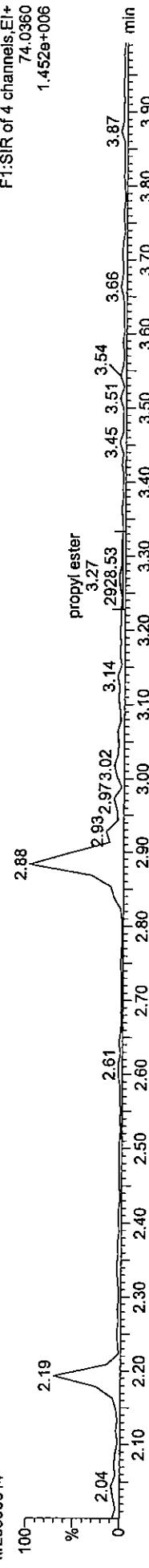
kr23600014 Smooth(Mn,3x1)

D8 naphthalene;9.40;1952665.75



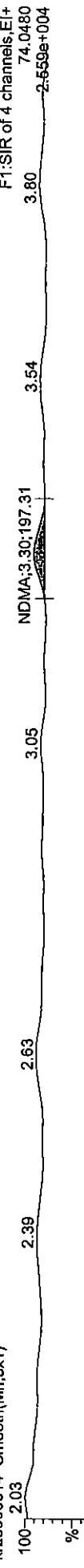
propyl ester

kr23600014



NDMA

kr23600014 Smooth(Mn,3x1)



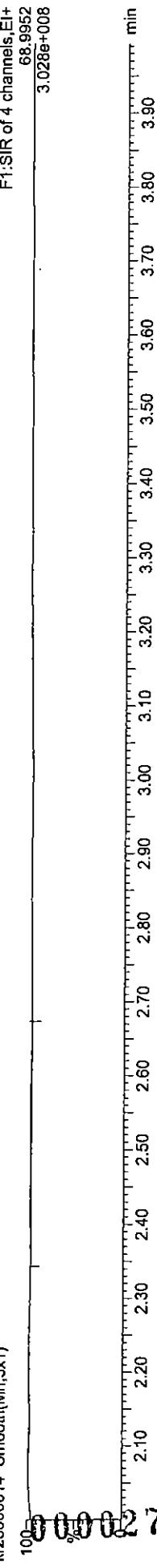
D6 NDMA

kr23600014 Smooth(Mn,3x1)

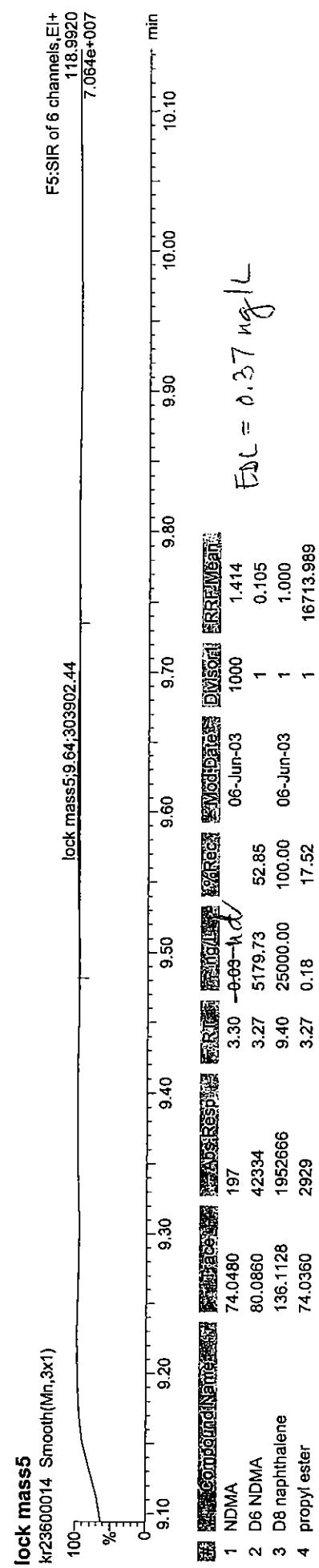


lock mass1

kr23600014 Smooth(Mn,3x1)



Dataset: C:\MASSLYN\X\Default\protoQuarlynxFiles\QC\Blks_Spkst20030603\blkx_20030603.qld, Time: Fri Jun 06 13:12:57 2003

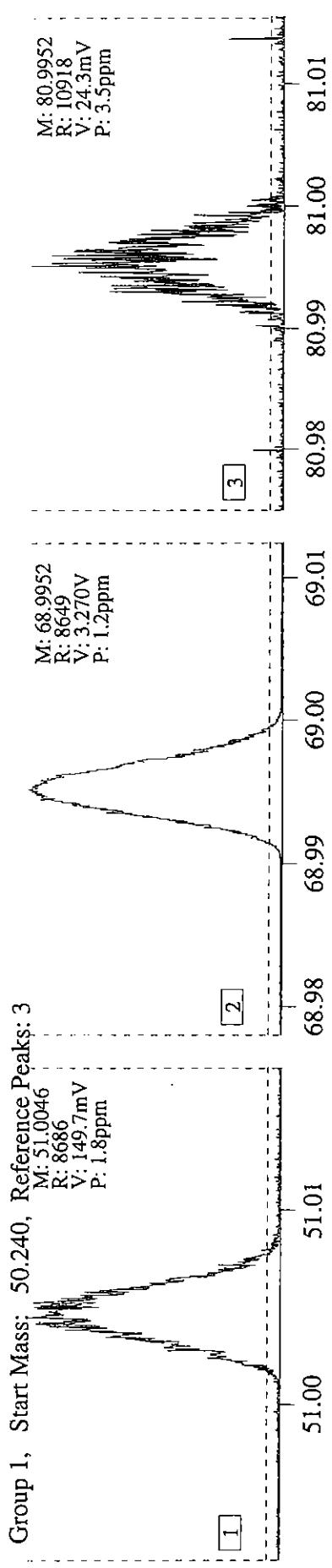


000028

MASS RESOLUTION CALIBRATION

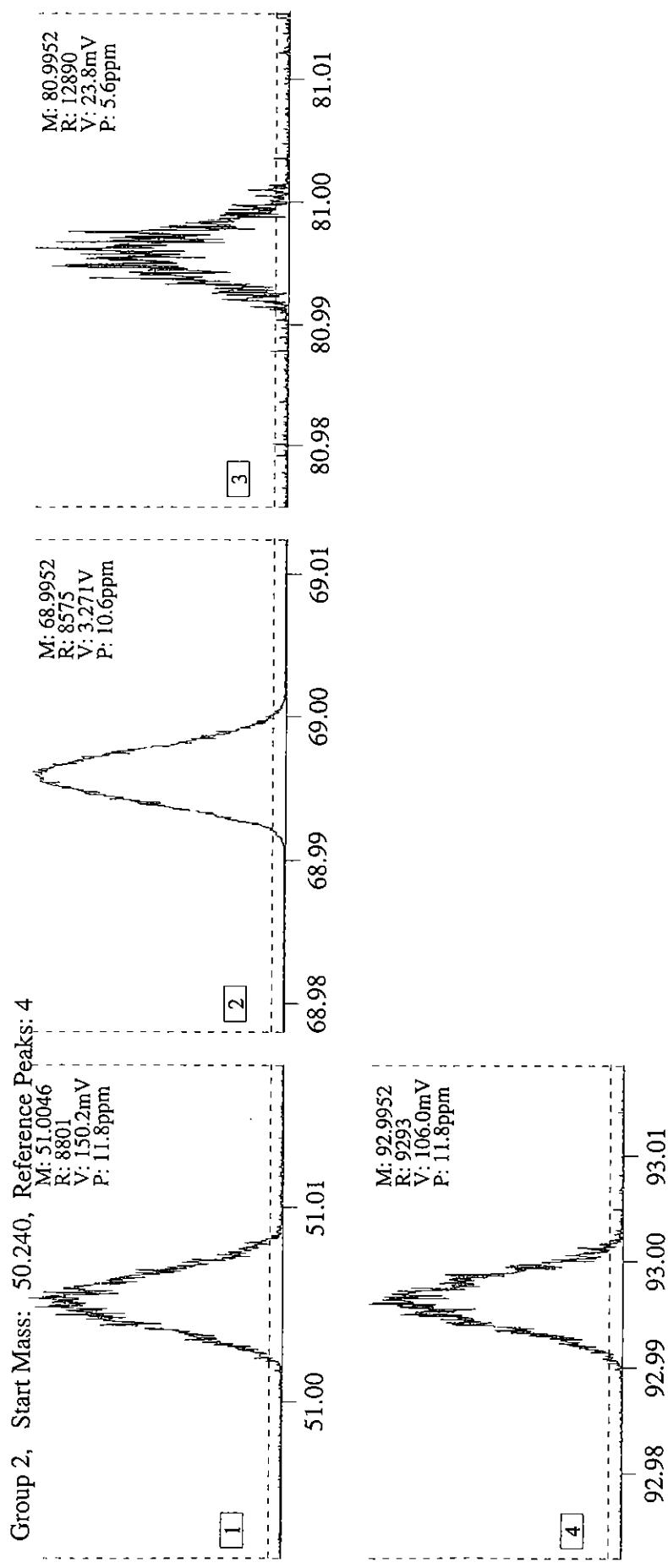
000029

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



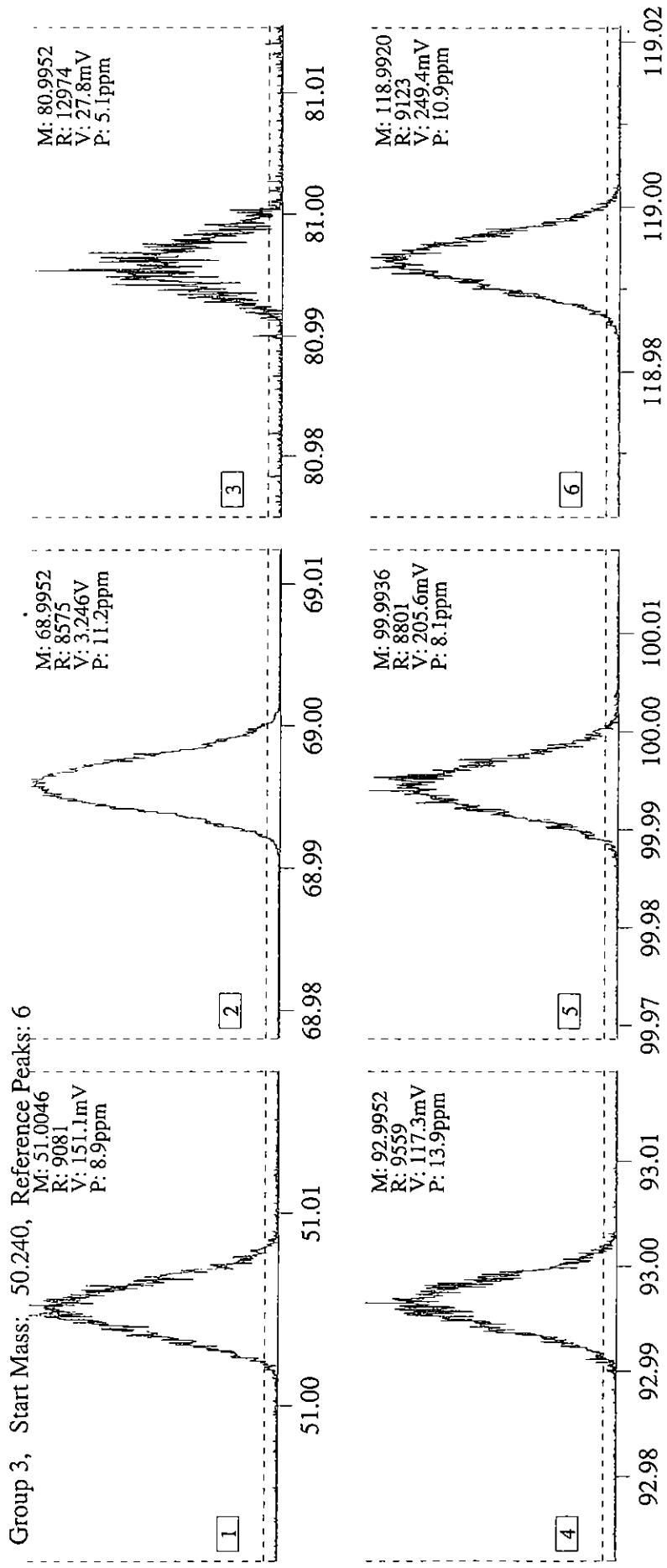
000030

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



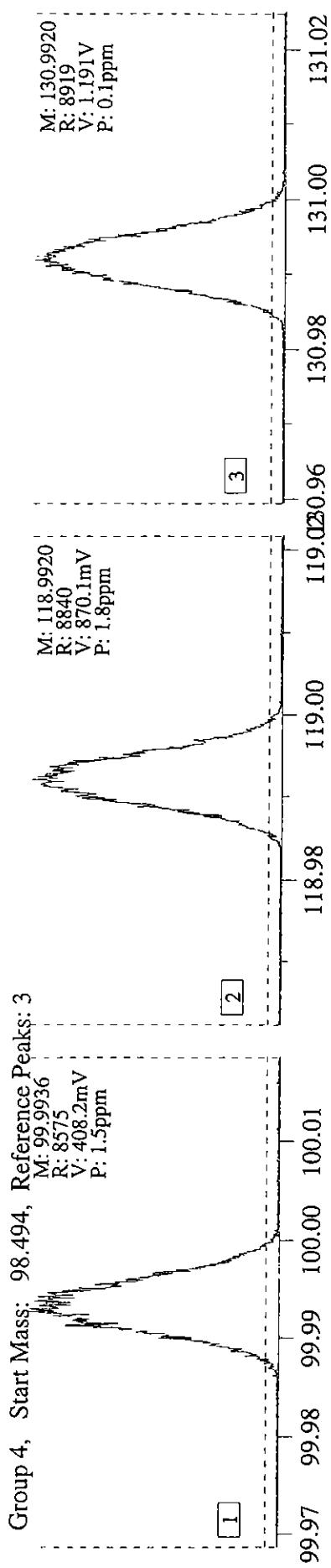
000031

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



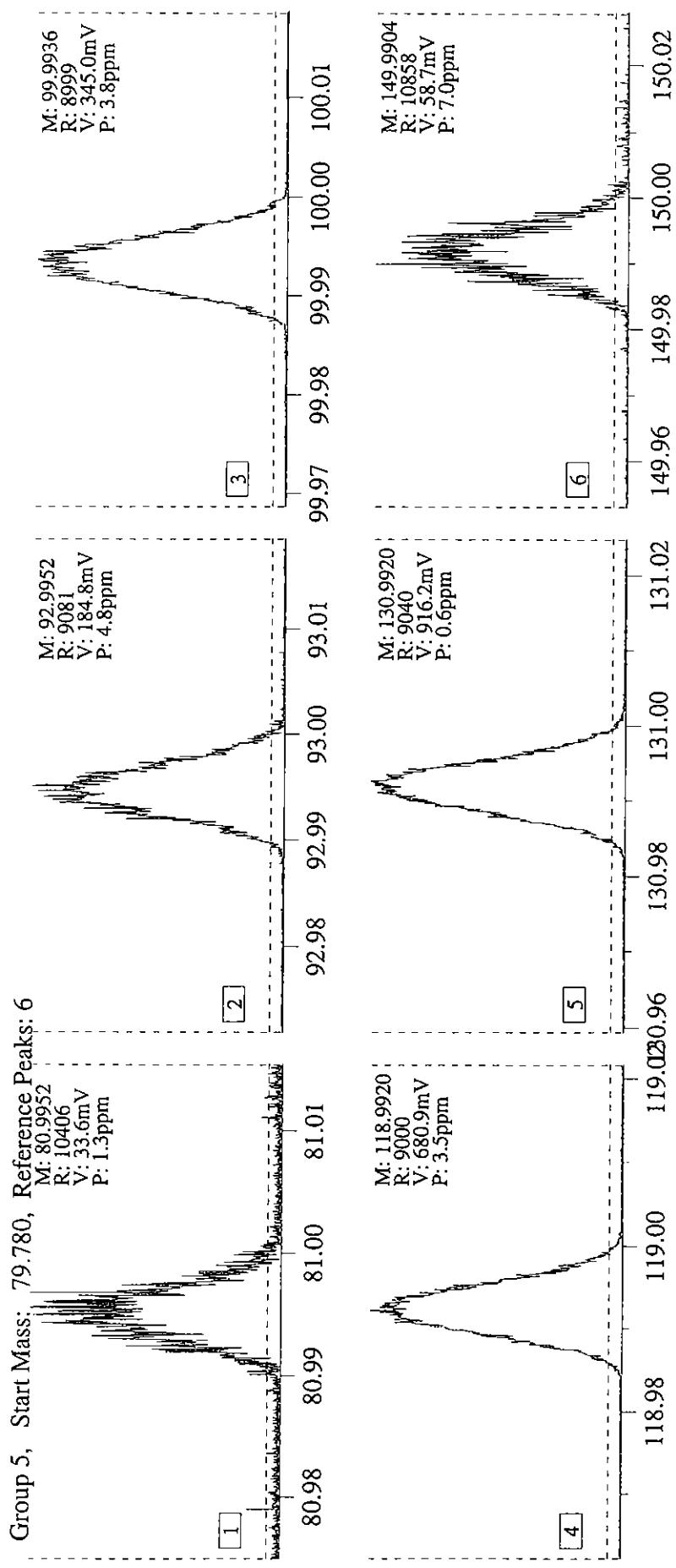
000032

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

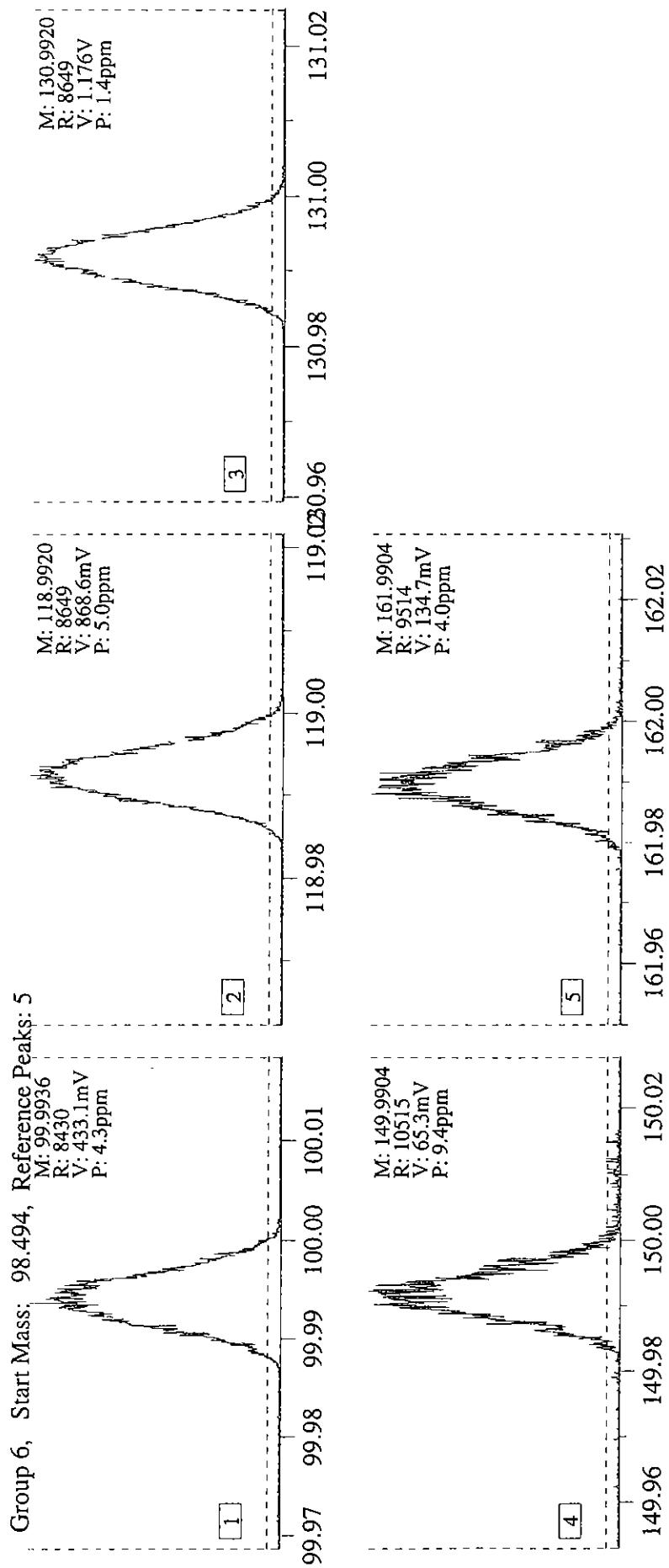


000033

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

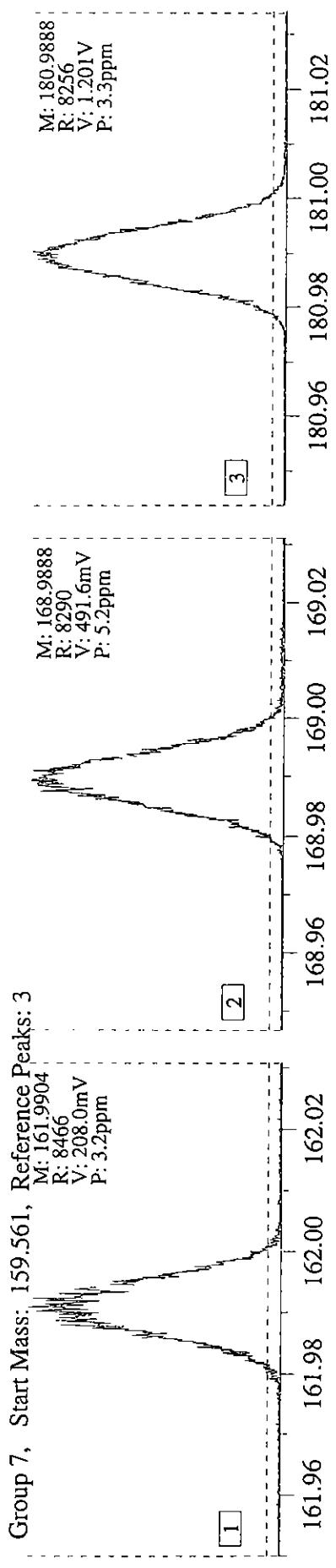


S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000035

S.I.M. Calibration 05-Jun-2003 09:53, Run: kr23590003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

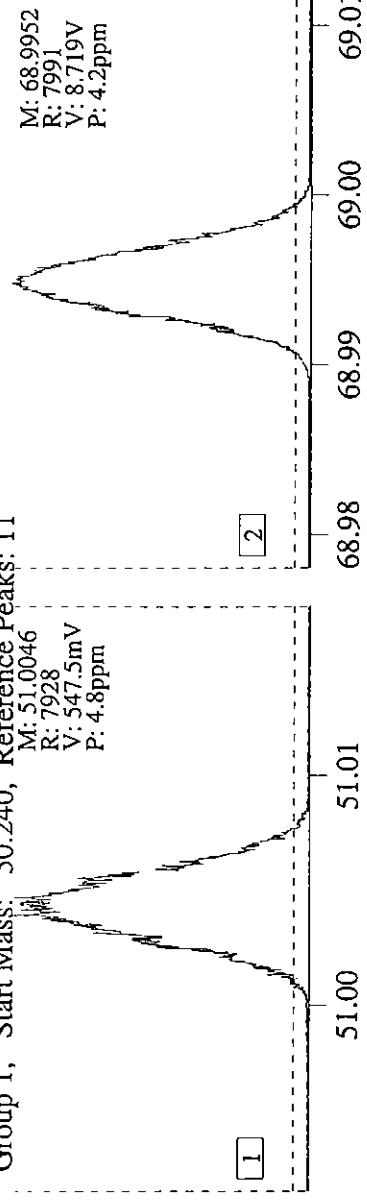


000036

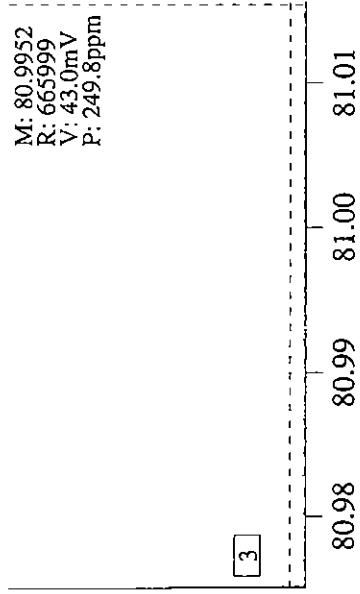
S.I.M. Calibration 05-Jun-2003 10:44, Run: kr23080006, Expt: nitrozone Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 1, Start Mass: 50.240, Reference Peaks: 11

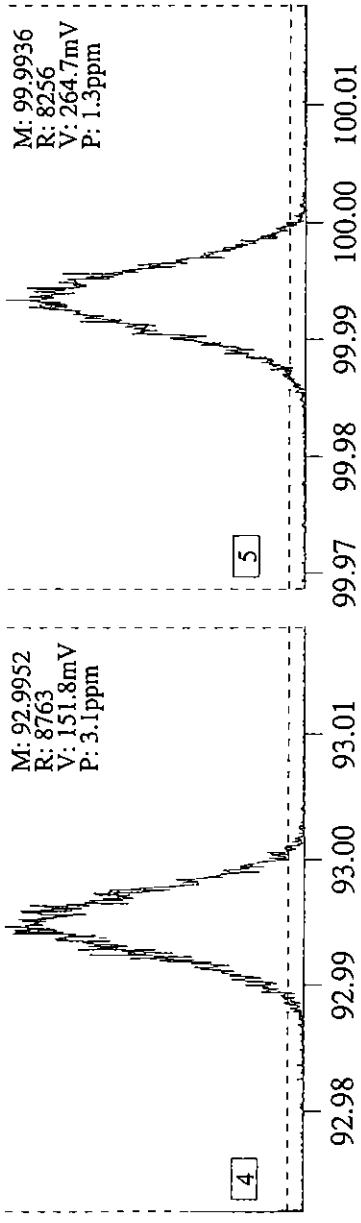
M: 51.0046
R: 7928
V: 547.5mV
P: 4.8ppm



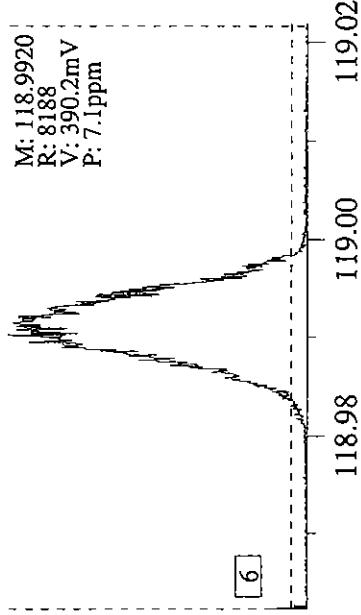
M: 68.9952
R: 7991
V: 8719V
P: 4.2ppm



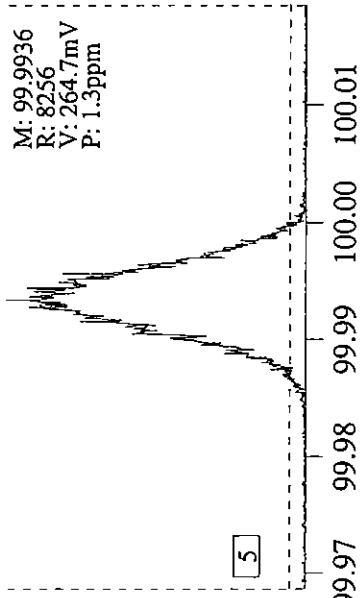
M: 92.9952
R: 8763
V: 151.8mV
P: 3.1ppm



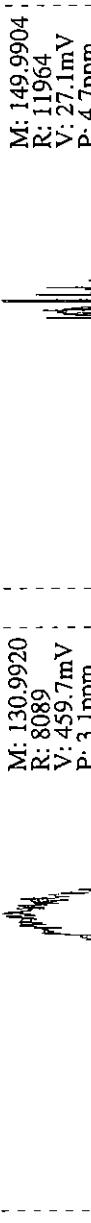
M: 80.9952
R: 665999
V: 43.0mV
P: 249.8ppm



M: 99.9936
R: 8256
V: 264.7mV
P: 1.3ppm



M: 130.9920
R: 8089
V: 459.7mV
P: 3.1ppm



M: 118.9920
R: 8188
V: 390.2mV
P: 7.1ppm



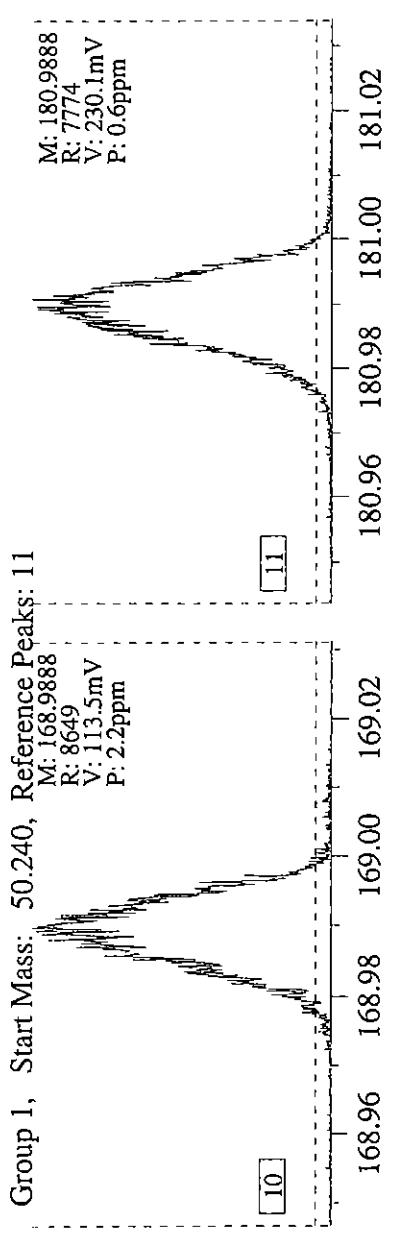
M: 149.9904
R: 11964
V: 27.1mV
P: 4.7ppm



M: 161.9904
R: 9249
V: 45.6mV
P: 1.7ppm



S.I.M. Calibration 05-Jun-2003 10:44, Run: kr23080006, Expt: nitrozone Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

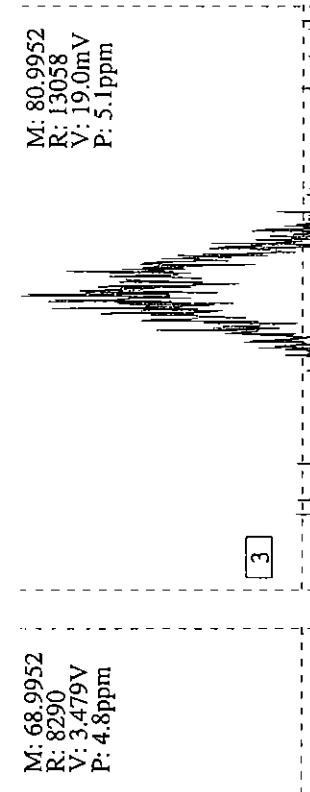
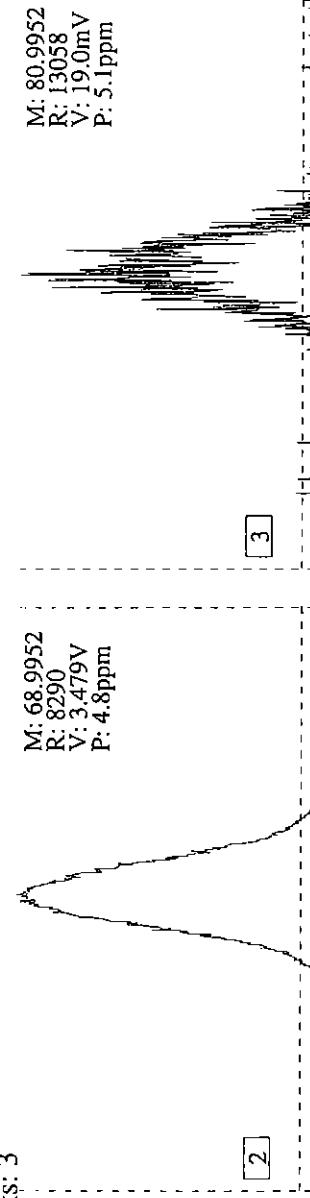
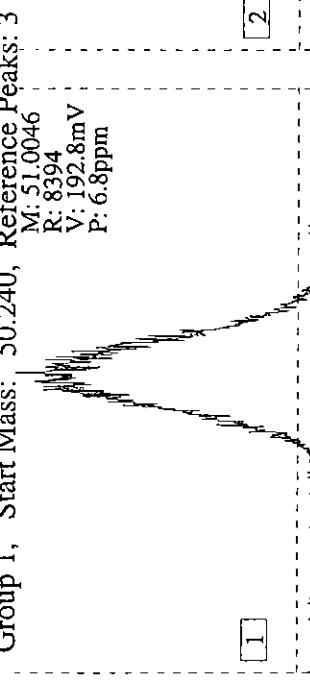


000038

S.I.M. Calibration 05-Jun-2003 13:07, Run: kr23590009, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

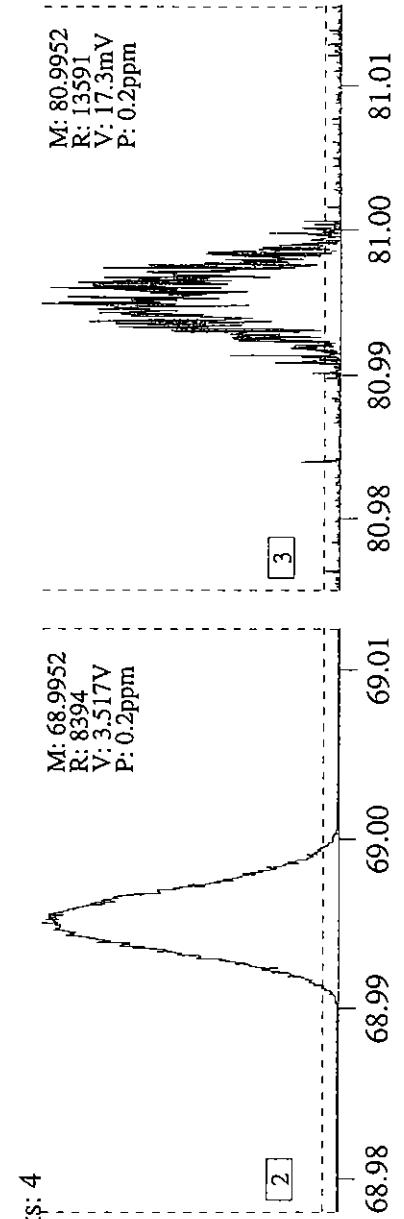
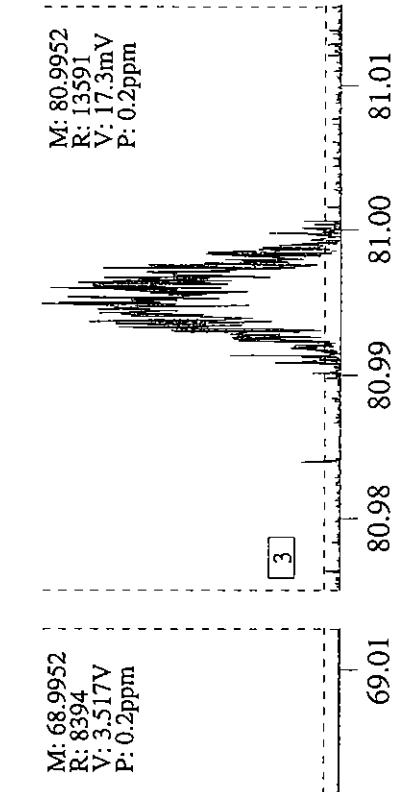
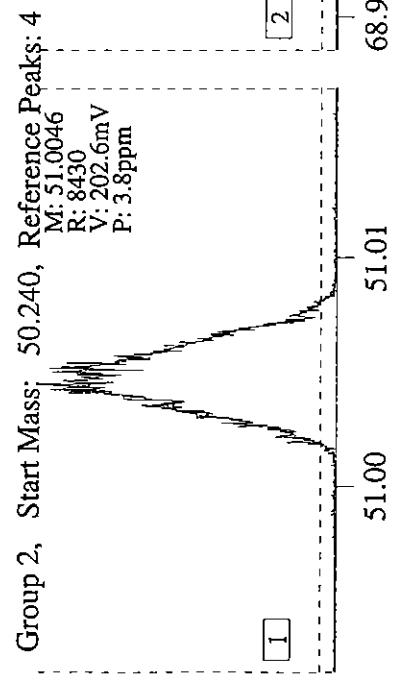
Group 1, Start Mass: 50.240, Reference Peaks: 3

M: 51.0046
R: 8394
V: 192.8mV
P: 6.8ppm

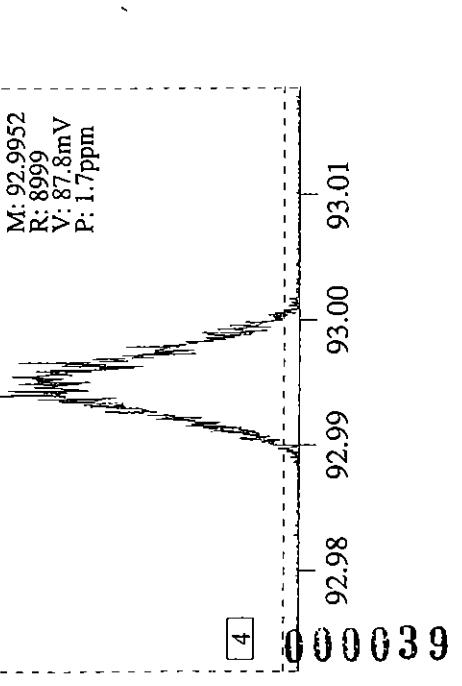


Group 2, Start Mass: 50.240, Reference Peaks: 4

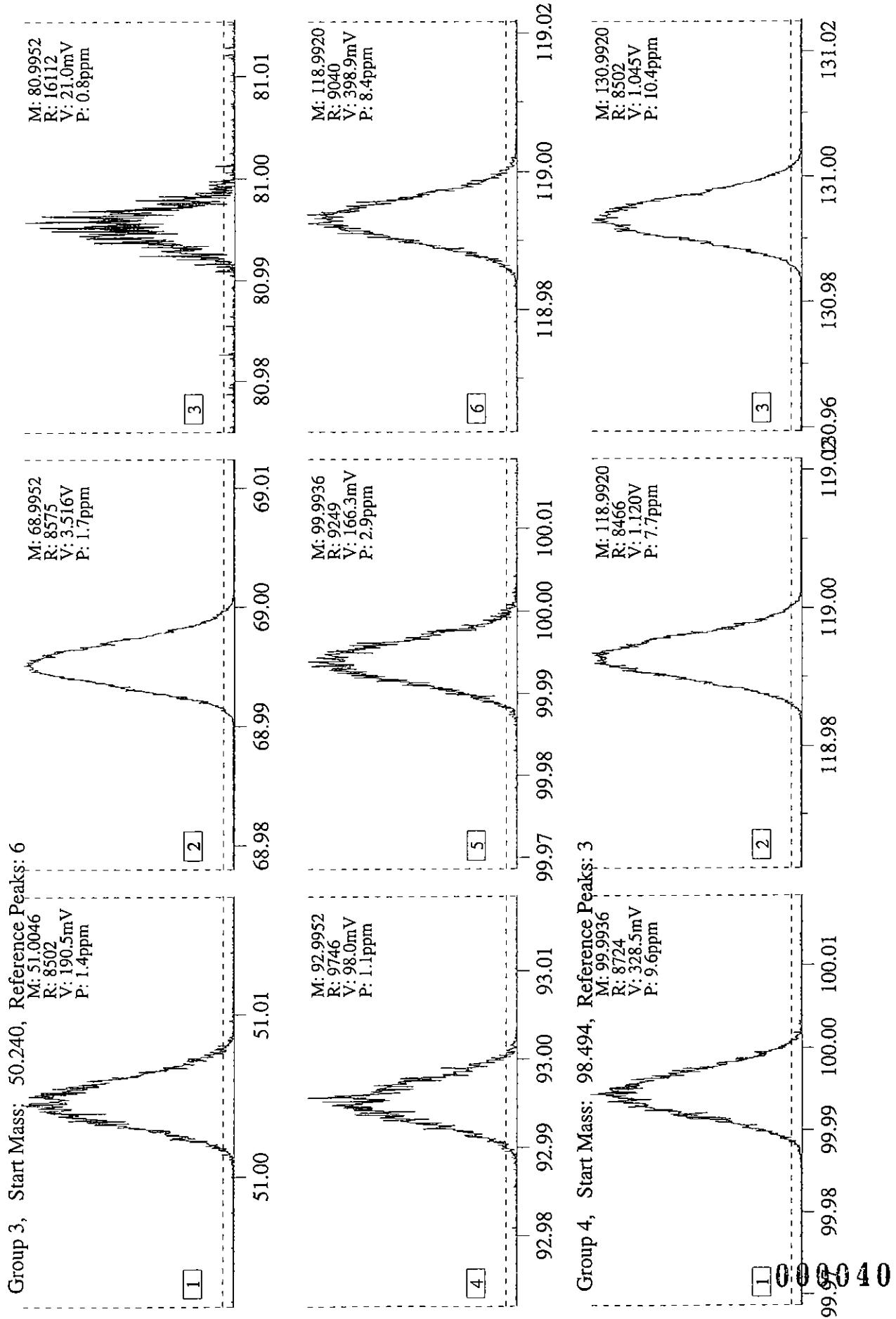
M: 51.0046
R: 8430
V: 202.6mV
P: 3.8ppm



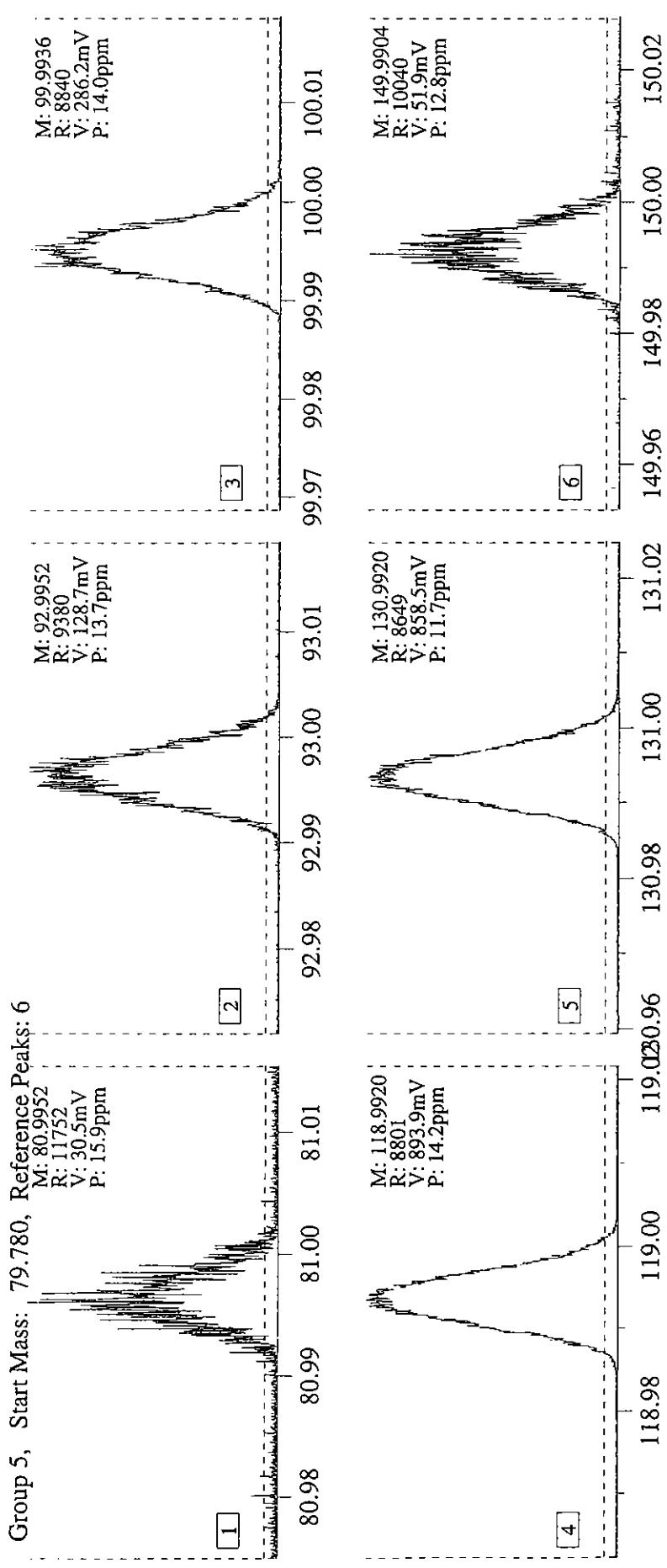
M: 92.9952
R: 8999
V: 87.8mV
P: 1.7ppm



000039



S.I.M. Calibration 05-Jun-2003 13:07, Run: kr23590009, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

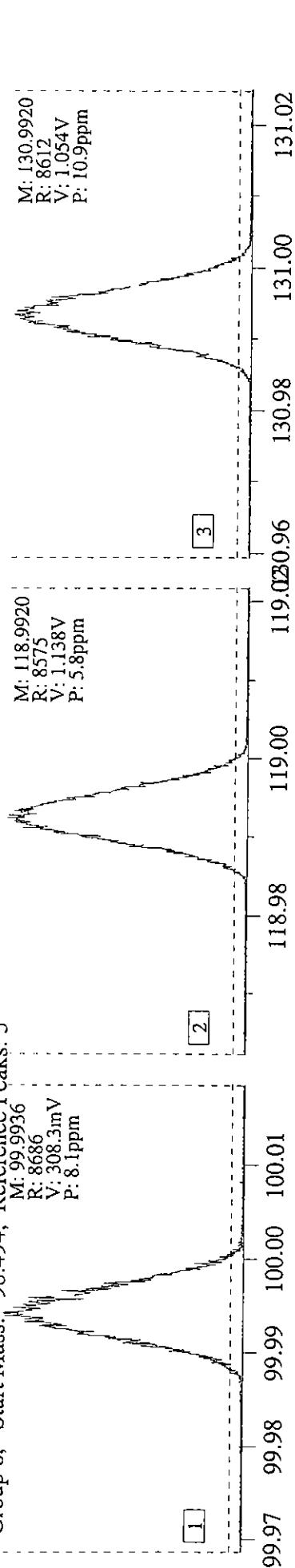


000041

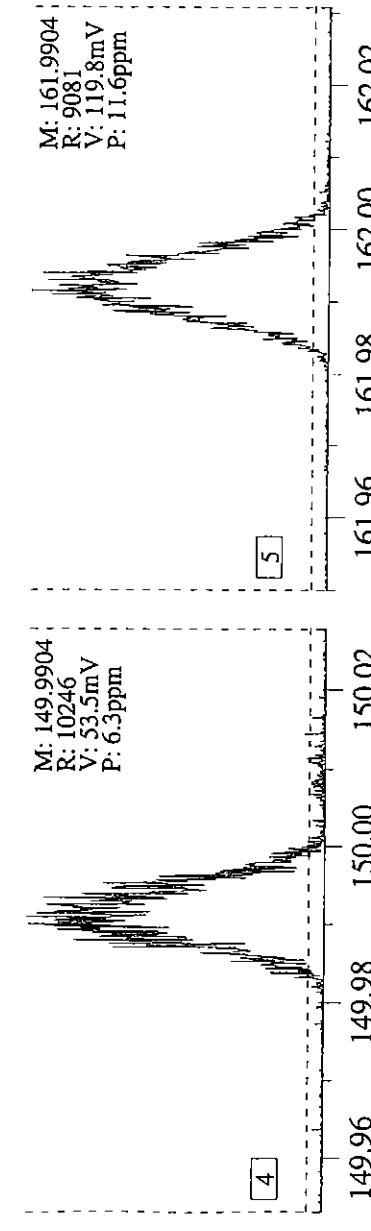
S.I.M. Calibration 05-Jun-2003 13:07, Run: kr23590009, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 6, Start Mass: 98.494, Reference Peaks: 5

M: 99.9936
R: 8686
V: 308.3mV
P: 8.1ppm

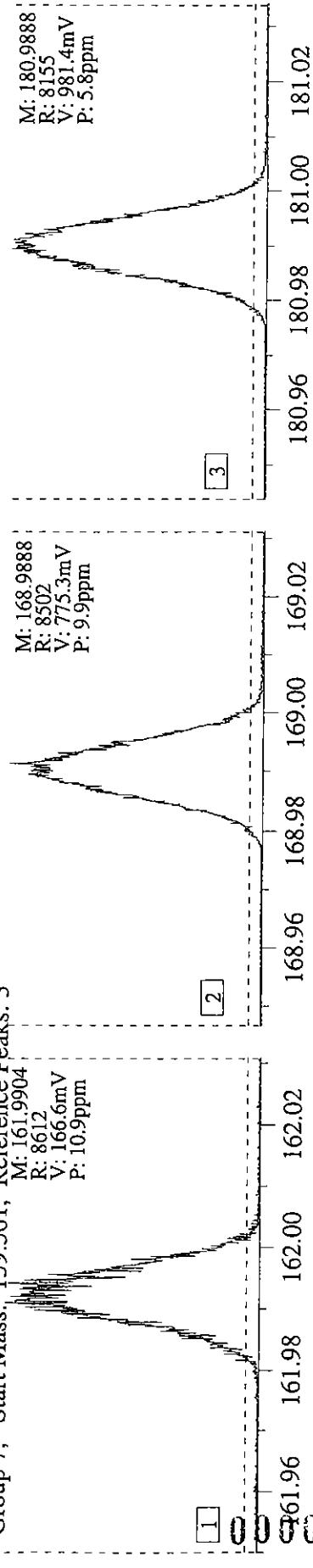


M: 149.9904
R: 10246
V: 53.5mV
P: 6.3ppm

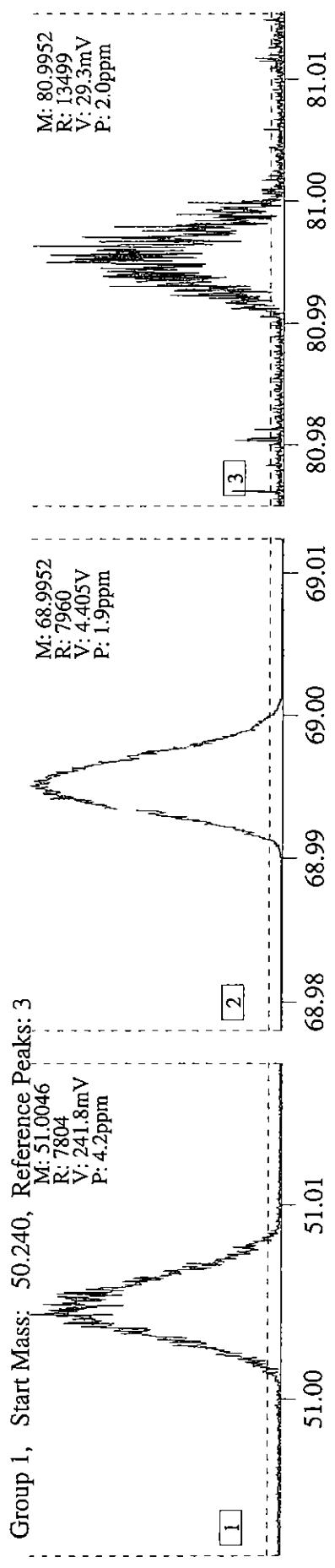


Group 7, Start Mass: 159.561, Reference Peaks: 3

M: 161.9904
R: 8612
V: 166.6mV
P: 10.9ppm

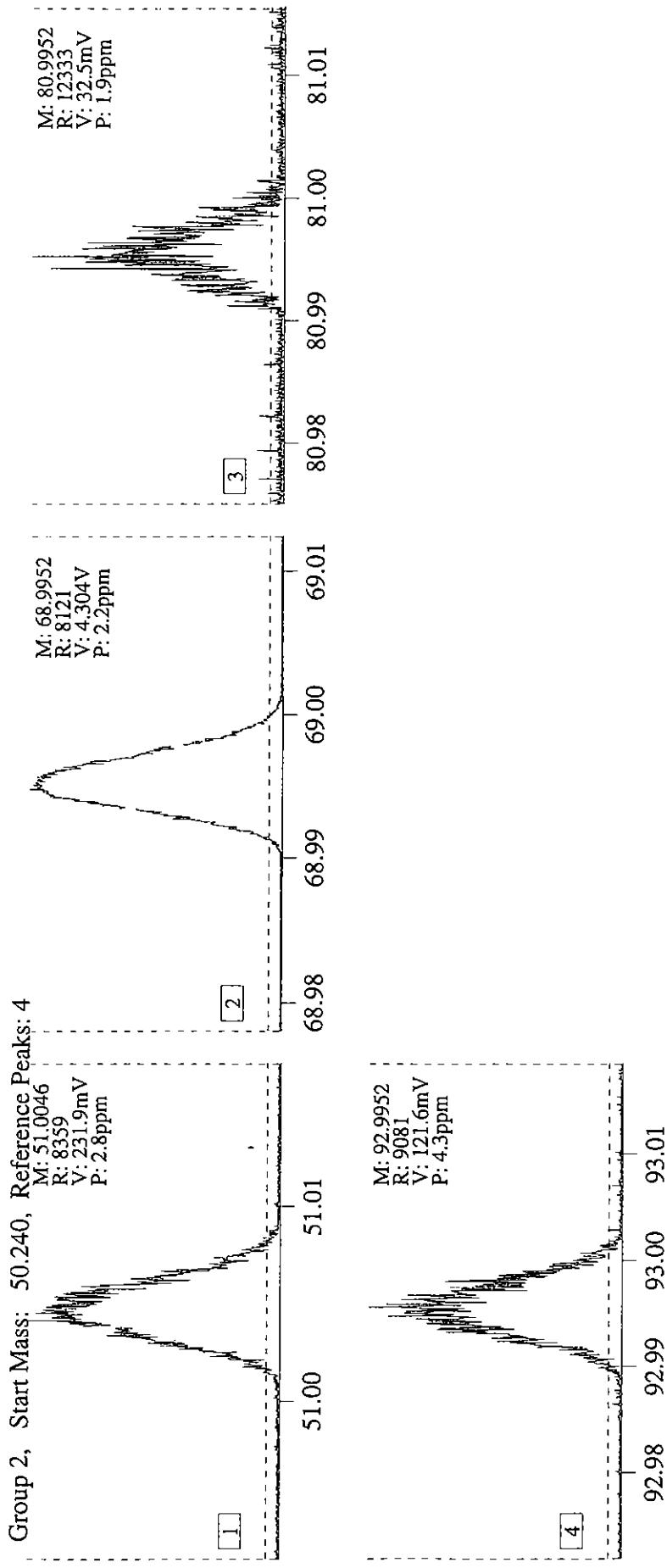


S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



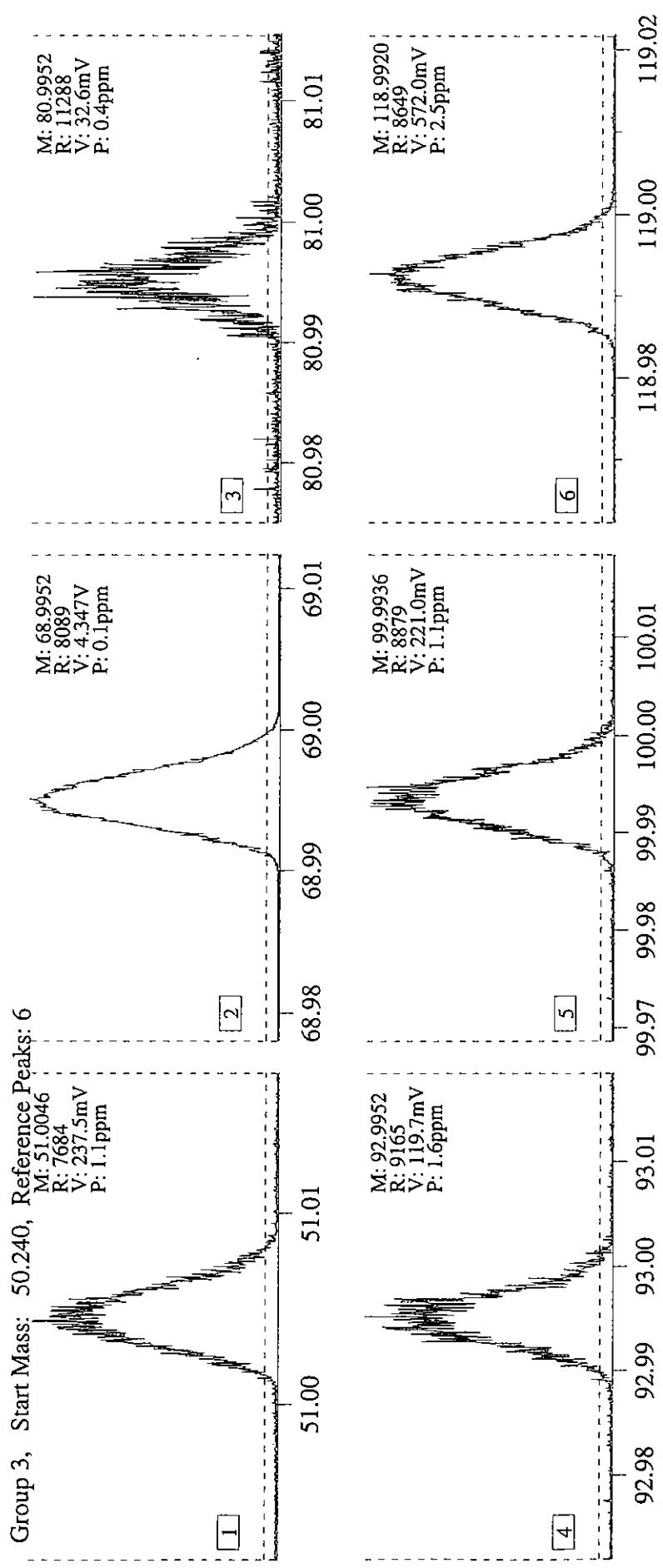
000043

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



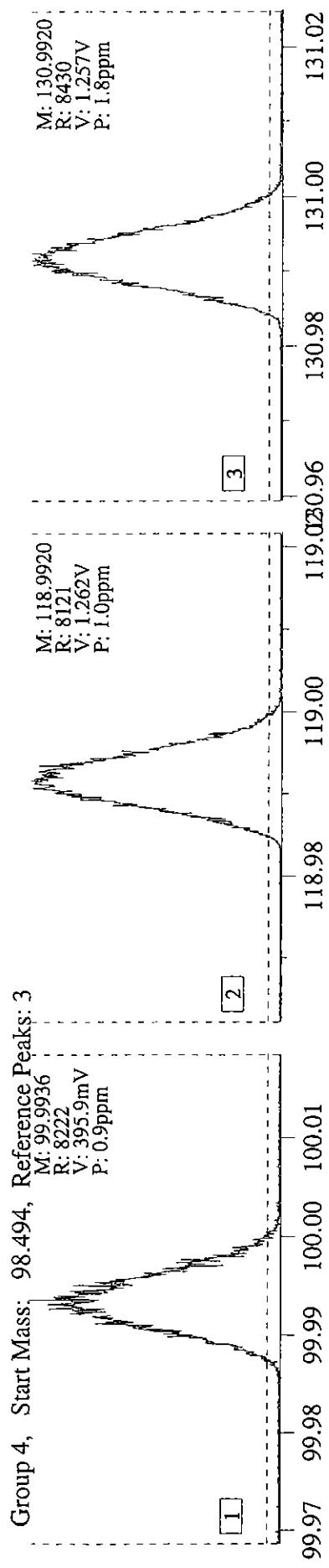
000044

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



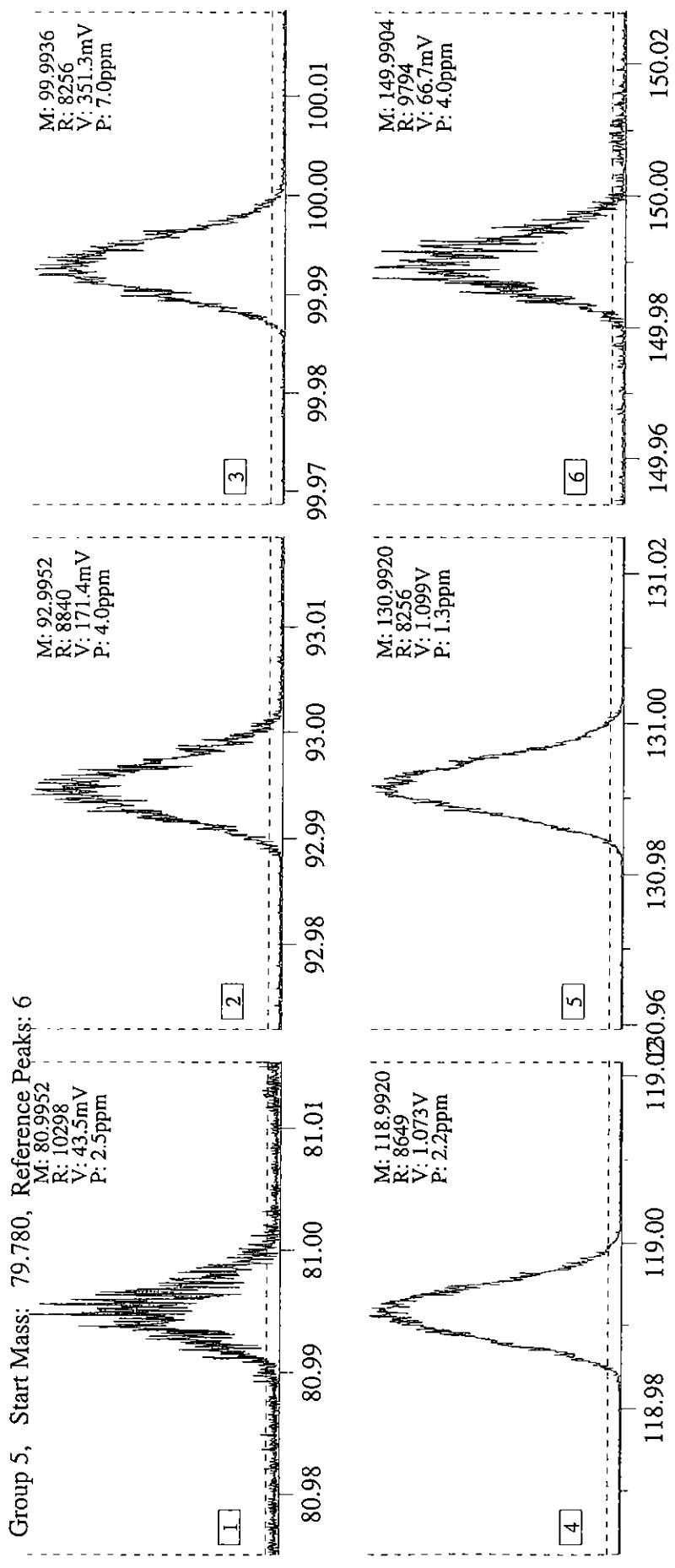
000045

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



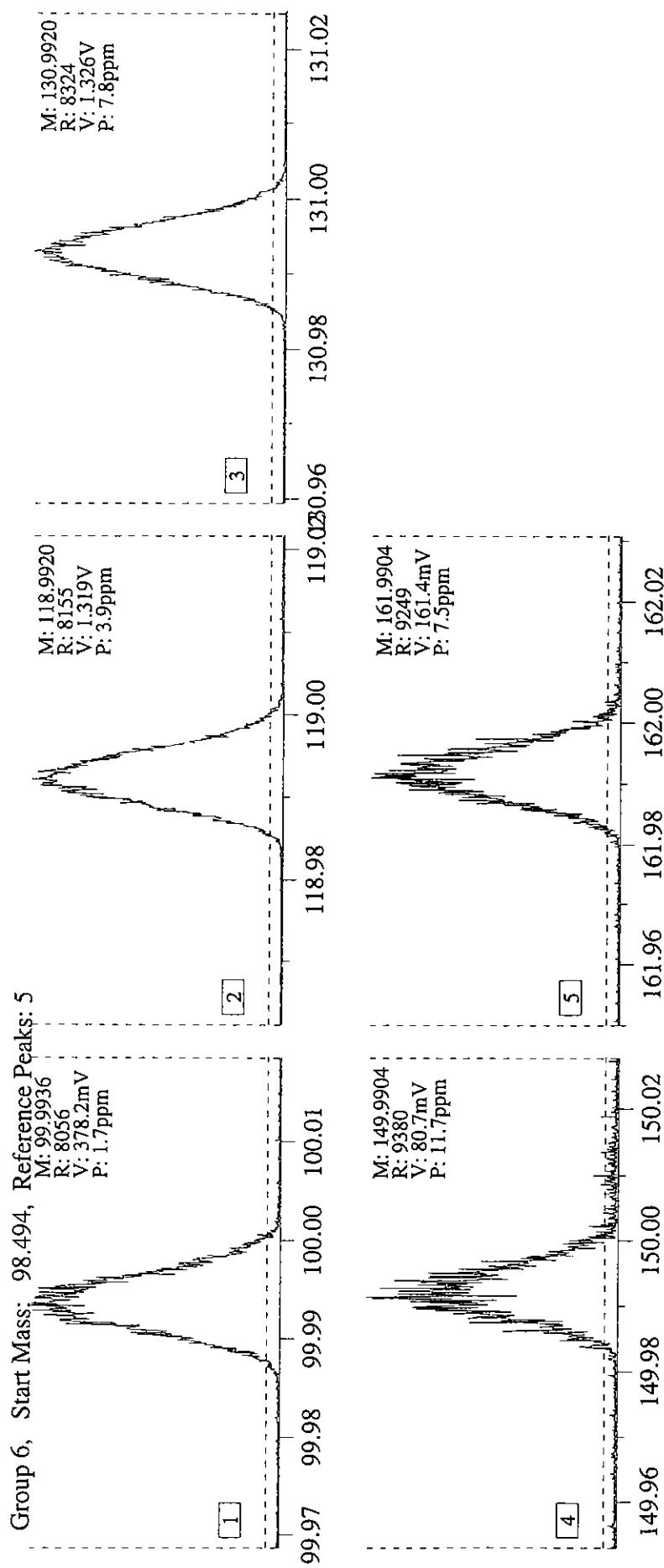
000046

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



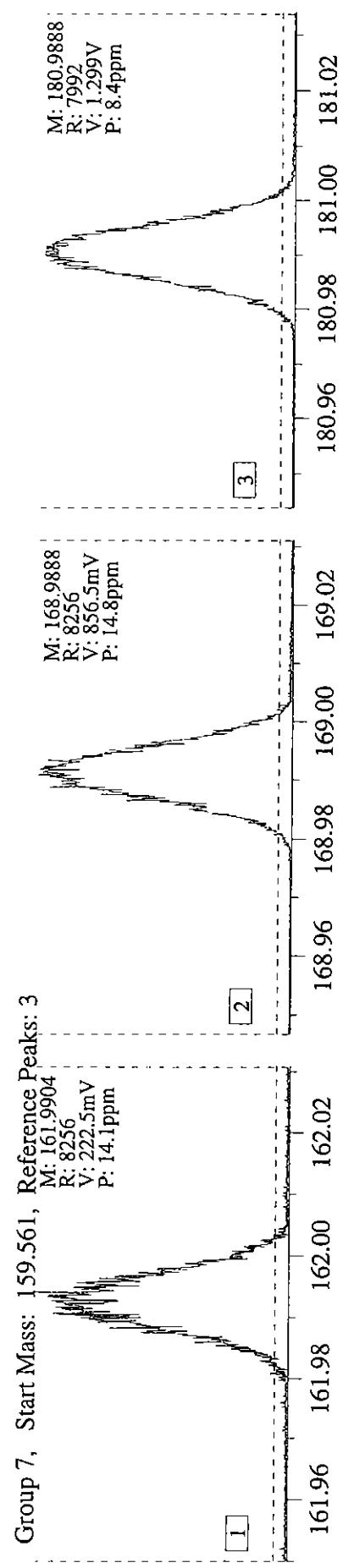
000047

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr23600003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000048

S.I.M. Calibration 06-Jun-2003 08:03, Run: kr2360003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000049

INITIAL CALIBRATION

000050

INITIAL CALIBRATION

Lab Name	Maxxam Analytics Inc.									
Instrument:	Kratos HRGC/HRMS									
	Calibration Date	2003/06/05								
LAB FILE ID.	KR23590013	CS1								
	KR23590014	CS2								
	KR23590015	CS3								
	KR23590012	CS4								
	KR23590016	CS5								
	KR23590017	CS6								

Compound	RRF CS1 (5.00ng/mL)	RRF CS2 (50.0ng/mL)	RRF CS3 (80.00ng/mL)	RRF CS4 (200.0ng/mL)	RRF CS5 (1000ng/mL)	RRF CS6 (2000ng/mL)	Average RRF	%RSD	Max %RSD
NDMA	1.33	1.48	1.51	1.35	1.38	1.46	1.41	5	25
D6 NDMA	0.110	0.110	0.0940	0.113	0.105	0.0950	0.105	8	25

000051

Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 1 of 13

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

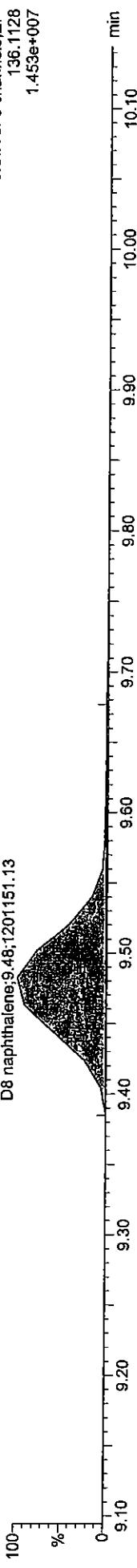
Method: C:\MASSLYNX\Default\pro\METHDB\Nitros_EI.mdb, Time: Thu May 15 11:50:59 2003

Calibration: Untitled, Time: Thu Jun 05 16:42:48 2003

Name: kr23590013.*, Date: 05-Jun-2003, Time: 14:33:35, ID: , Description: 200ng/mL,72-24NDMW-1284-3 1/2

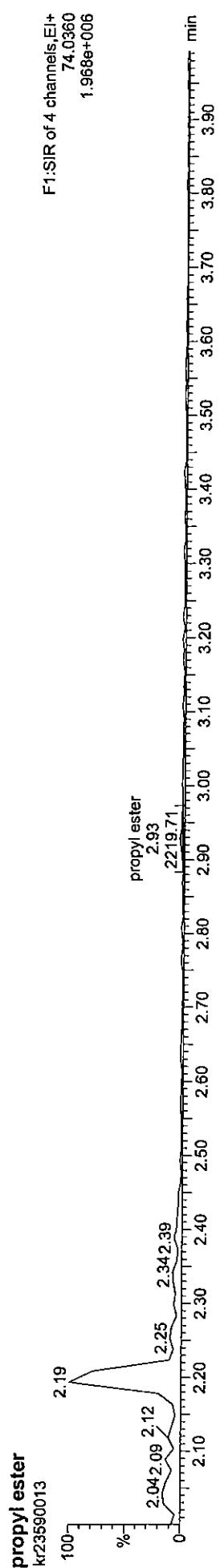
D8 naphthalene

kr23590013 Smooth(Mn,3x1)



propyl ester

kr23590013



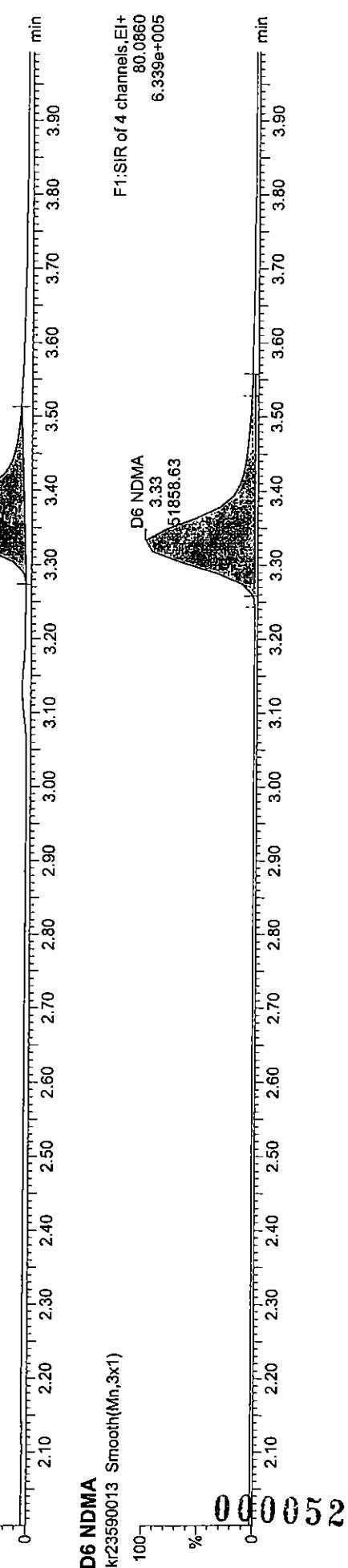
NDMA

kr23590013 Smooth(Mn,3x1)



D6 NDMA

kr23590013 Smooth(Mn,3x1)

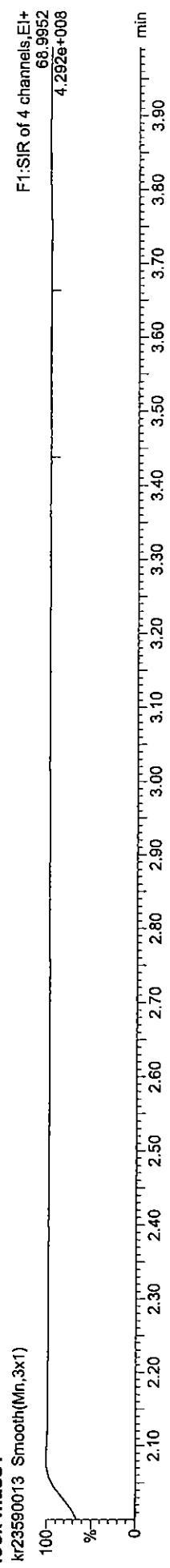


Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 2 of 13

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qld, Time: Thu Jun 05 16:42:48 2003

lock mass1
kr23590013 Smooth(Mn,3x1)



lock mass5
kr23590013 Smooth(Mn,3x1)



#	Compound Name	RT [min]	Response	RT [min]	RT [min]	RT [min]	RT [min]
1	NDMA	74.0480	35297	3.36	4718	-5.64	1.334
2	D6 NDMA	80.0860	51859	3.33	10315	5.26	0.110
3	D8 naphthalene	136.1128	1201151	9.48	25000	0.00	1.000
4	propyl ester	74.0360	2220	2.93	0	-86.72	2219....

000053

Quantify Sample Report

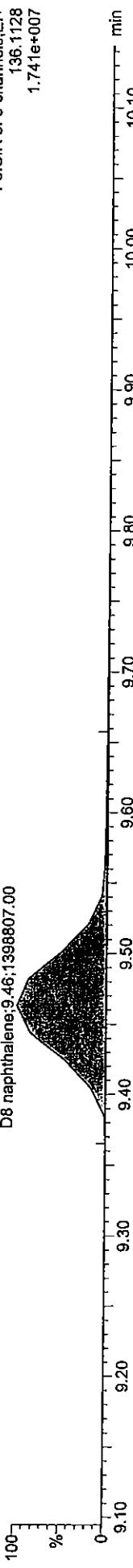
Printed: Thu Jun 05 16:45:51 2003, Page 3 of 13

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

Name: kr23590014.* Date: 05-Jun-2003, Time: 14:52:49, ID: , Description: 50ng/ml, 72-22NDMW-1274

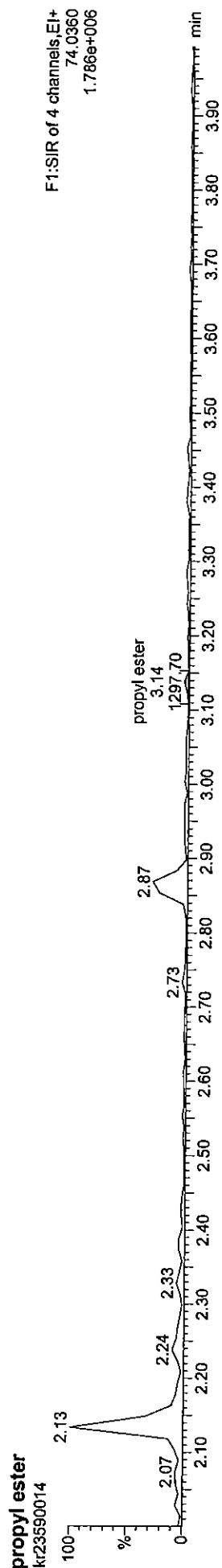
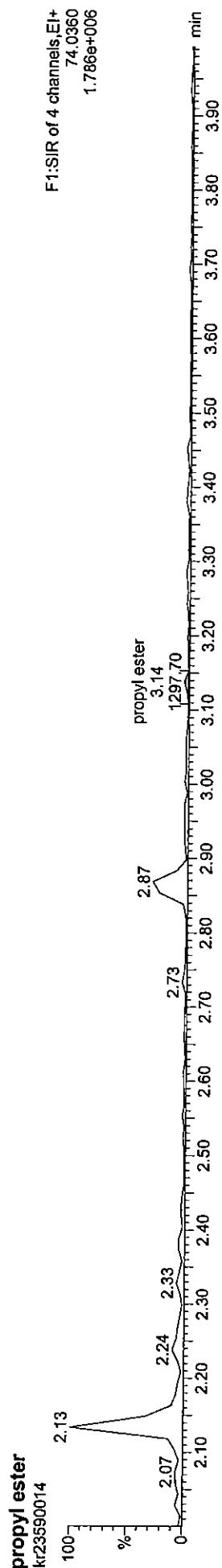
D8 naphthalene

kr23590014 Smooth(Mn,3x1)



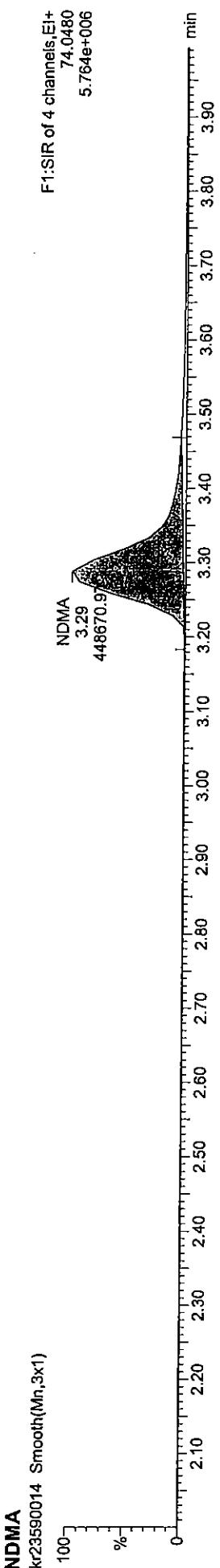
D8 naphthalene

F5:SIR of 6 channels, EI+
136.1128
1.741e+007



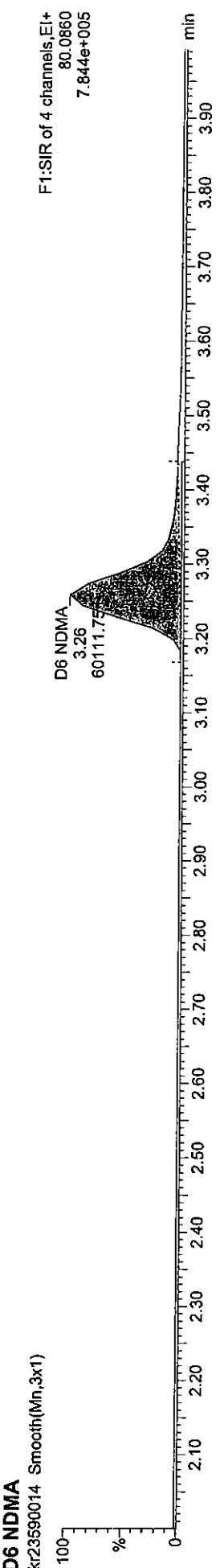
NDMA

kr23590014 Smooth(Mn,3x1)



D6 NDMA

kr23590014 Smooth(Mn,3x1)



000054

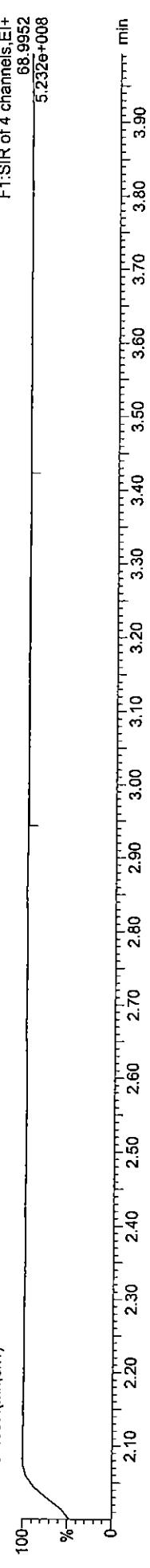
Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 4 of 13

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitrosscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

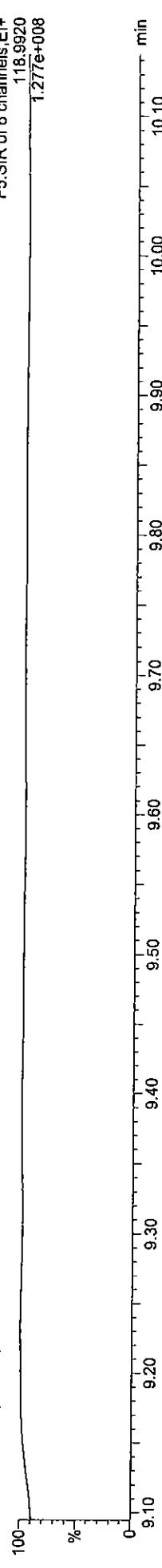
lock mass1

kr23590014 Smooth(Mn,3x1)



lock mass5

kr23590014 Smooth(Mn,3x1)



Compound Name	RT _{Calcd}	RT _{Found}	RT _{Diff}	RT _{Std}	RT _{Diff}	ModDate
1 NDMA	74.0480	44.8671	3.29	51740	3.48	1.463 05-Jun-03
2 D6 NDMA	80.0860	60112	3.26	10267	4.77	0.110 05-Jun-03
3 D8 naphthalene	136.1128	1398807	9.46	25000	0.00	1.000
4 propyl ester	74.0360	1298	3.14	0	-92.24	1297....

000055

Quantify Sample Report

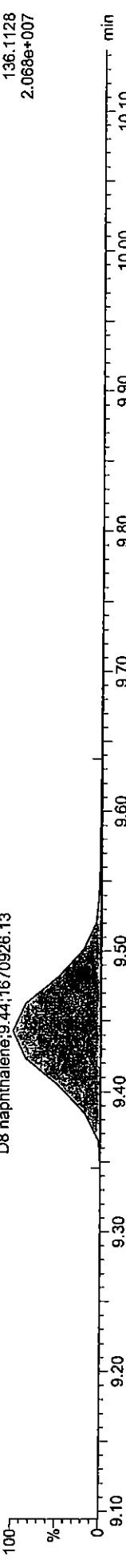
Printed: Thu Jun 05 16:45:51 2003, Page 5 of 13

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qld, Time: Thu Jun 05 16:42:48 2003

Name: kr23590015*, Date: 05-Jun-2003, Time: 15:08:03, ID: , Description: 80ng/mL,72-22NDMW-1275

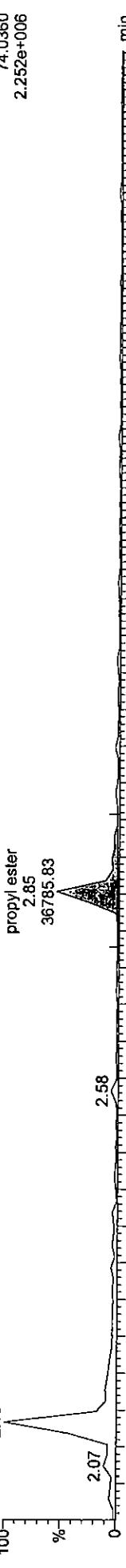
D8 naphthalene

kr23590015 Smooth(Mn,3x1)



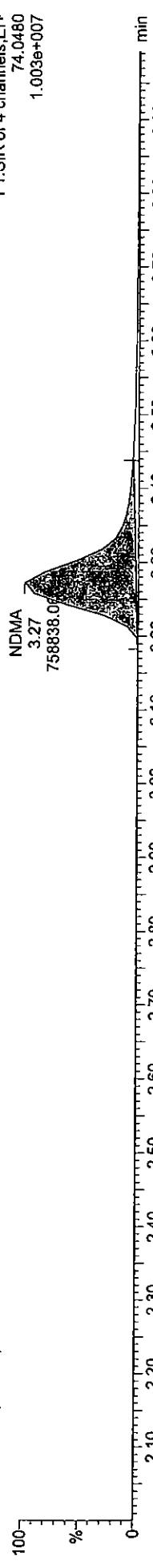
propyl ester

kr23590015 Smooth(Mn,3x1)



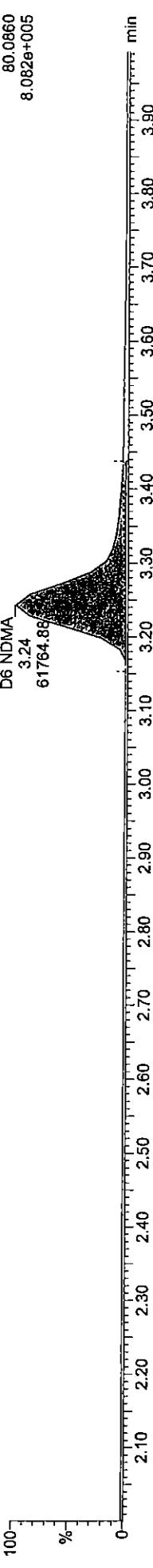
NDMA

kr23590015 Smooth(Mn,3x1)



D6 NDMA

kr23590015 Smooth(Mn,3x1)



0 0 0 0 5 6

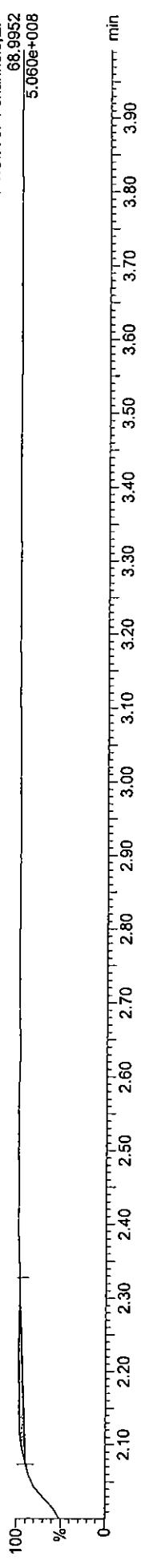
Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 6 of 13

Dataset: C:\MASSLYNX\Default,pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

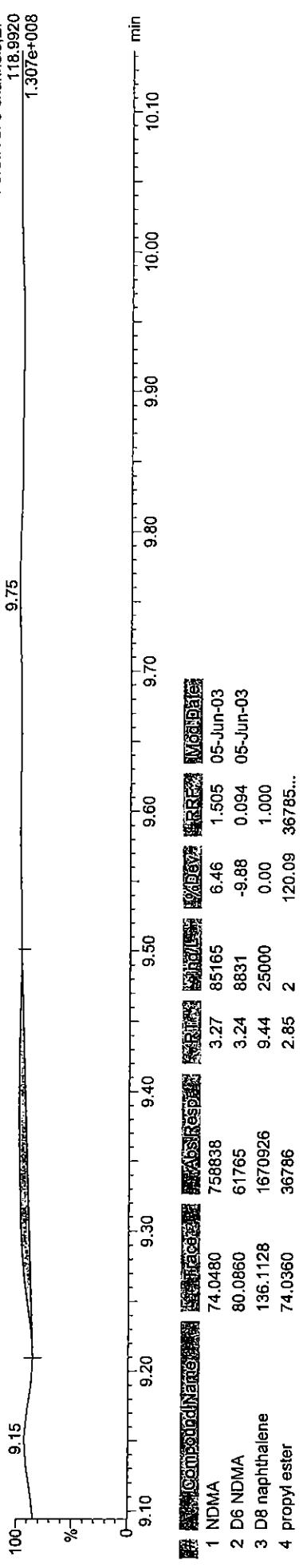
lock mass1

kr23590015 Smooth(Mn,3x1)



lock mass5

kr23590015 Smooth(Mn,3x1)



Compound Name	RT (min)	RT (min) REPD					
1 NDMA	74.0480	758838	3.27	85165	6.46	1.505	05-Jun-03
2 D6 NDMA	80.0860	61765	3.24	8831	-9.88	0.094	05-Jun-03
3 D8 naphthalene	136.1128	1670926	9.44	25000	0.00	1.000	
4 propyl ester	74.0360	36786	2.85	2	120.09	36785...	

000057

Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 7 of 13

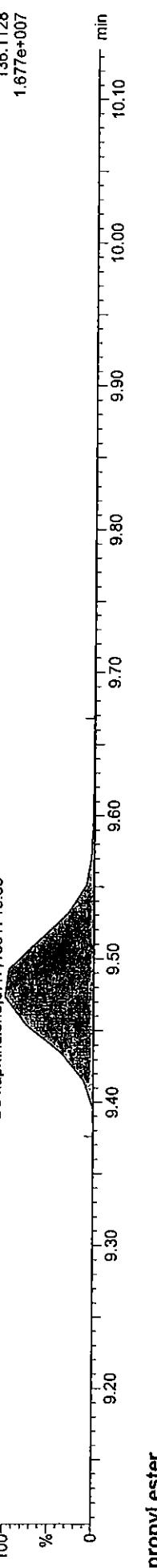
Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qld, Time: Thu Jun 05 16:42:48 2003

Name: kr23590012.* , Date: 05-Jun-2003, Time: 14:11:12, ID: , Description: 200ng/mL,72-24NDMW-1284

D8 naphthalene

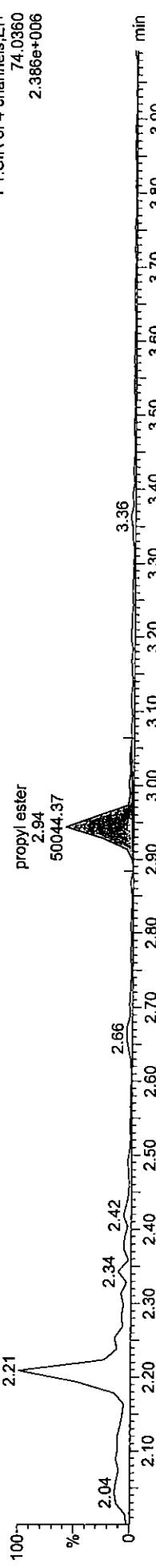
kr23590012 Smooth(Mn,3x1)

D8 naphthalene:9.47,1381713.38
F5:SIR of 6 channels,El+
136.1128
1.677e+007



propyl ester

kr23590012



2.21

2.94

50044.37

2.34 2.42

2.66

3.36

F1:SIR of 4 channels,El+
74.0360
2.386e+006

NDMA

kr23590012 Smooth(Mn,3x1)



NDMA

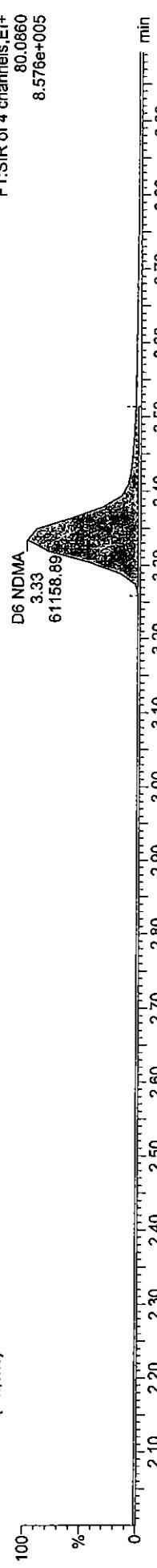
3.36

1681055.00

F1:SIR of 4 channels,El+
74.0480
2.343e+007

D6 NDMA

kr23590012 Smooth(Mn,3x1)



D6 NDMA

3.33

61158.89

F1:SIR of 4 channels,El+
80.0860
8.576e+005

0000578

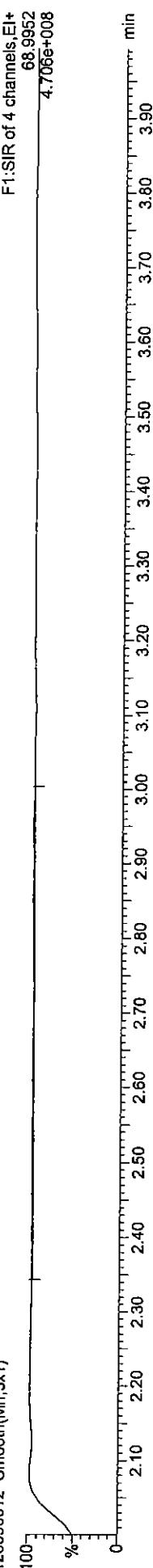
Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 8 of 13

Dataset: C:\MASSLYN\X\Default.pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qd, Time: Thu Jun 05 16:42:48 2003

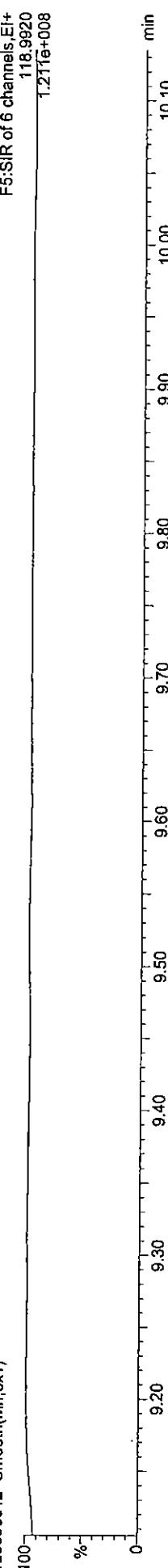
lock mass1

kr23590012 Smooth(Mn,3x1)



lock mass5

kr23590012 Smooth(Mn,3x1)



Compound Name	Exact Mass	Abundance	SIR	RT _{Exp}	RT _{Ref}	Diff RT	Mod Date
1 NDMA	74.0980	168.055	3.36	190556	-4.73	1.347	05-Jun-03
2 D6 NDMA	80.0960	61159	3.33	10575	7.91	0.113	05-Jun-03
3 D8 naphthalene	136.1128	138713	9.47	25000	0.00	1.000	
4 propyl ester	74.0960	50044	2.94	3	199.42	50044...	

000059

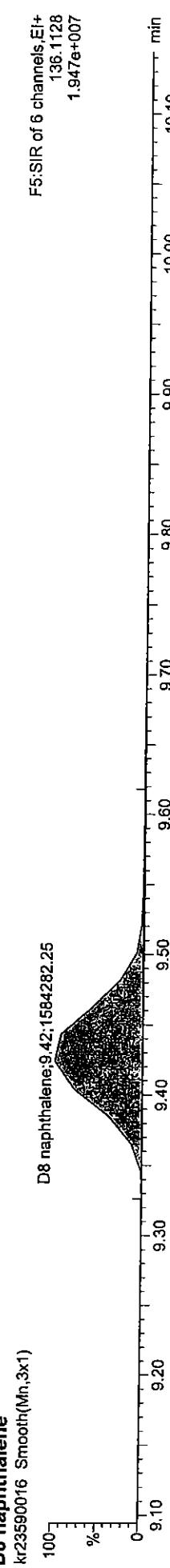
Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 9 of 13

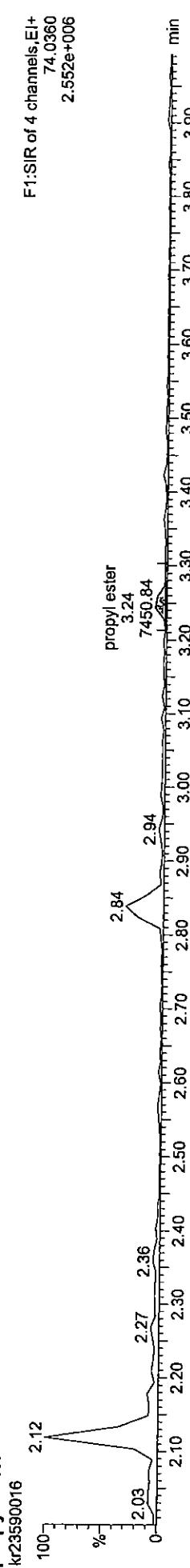
Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

Name: kr23590016.* Date: 05-Jun-2003, Time: 15:27:17, ID: , Description: 1000ng/ml, 72-22NDMW-1277

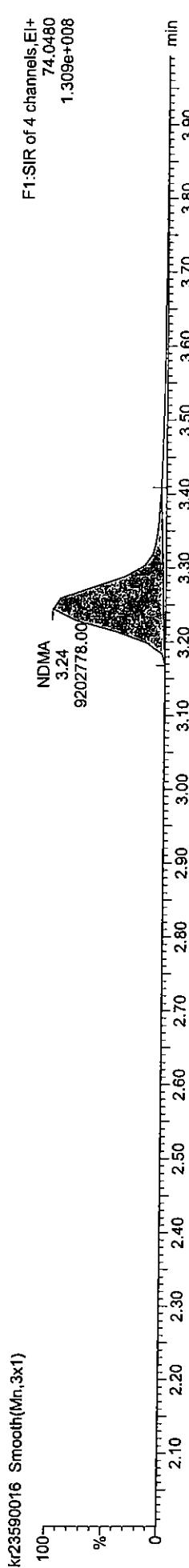
D8 naphthalene



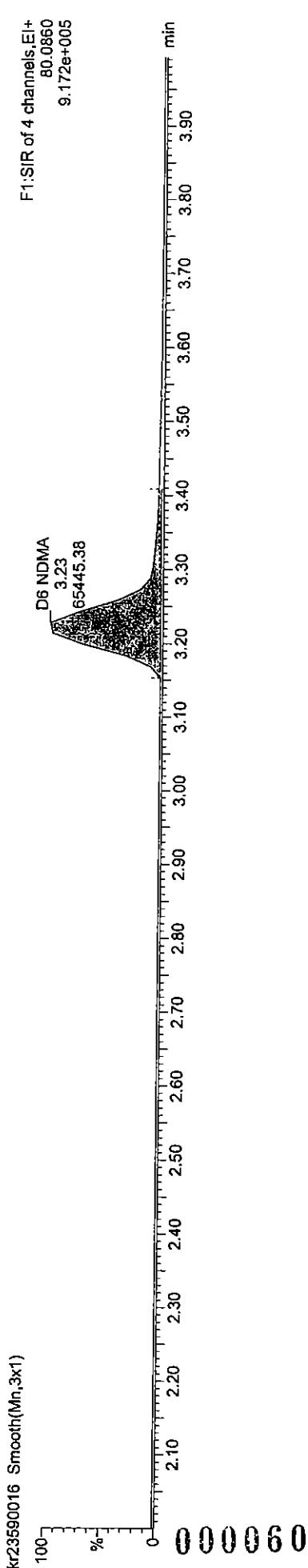
propyl ester



NDMA



D6 NDMA

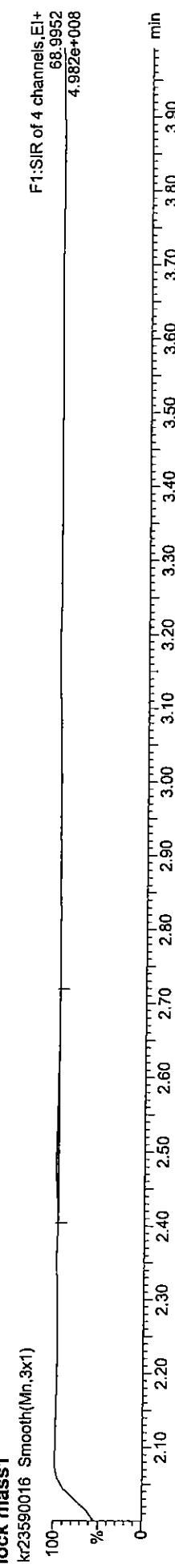


Quantify Sample Report

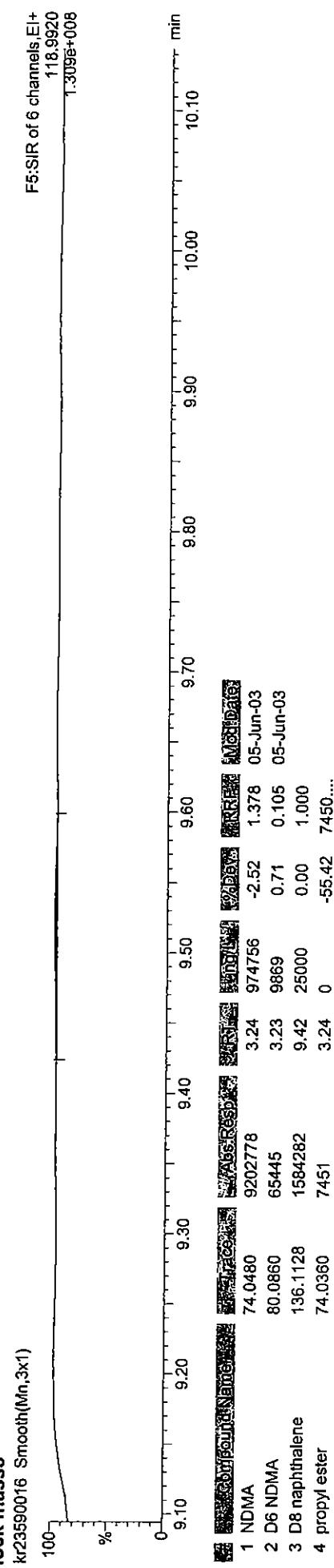
Printed: Thu Jun 05 16:45:51 2003, Page 10 of 13

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qid, Time: Thu Jun 05 16:42:48 2003

lock mass1



lock mass5



000061

Quantify Sample Report

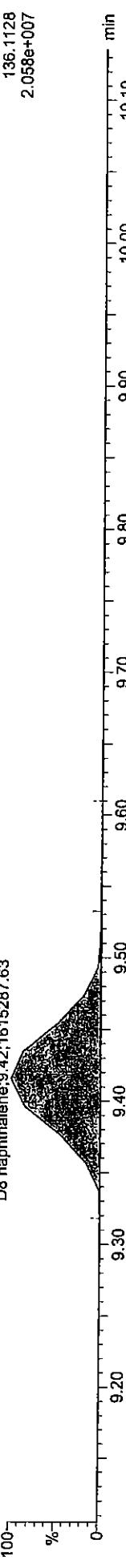
Printed: Thu Jun 05 16:45:51 2003, Page 11 of 13

Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitrosocal_20030605.qld, Time: Thu Jun 05 16:42:48 2003

Name: kr23590017*, Date: 05-Jun-2003, Time: 15:47:11, ID: , Description: 2000ng/mL_72-22NDMW-1278

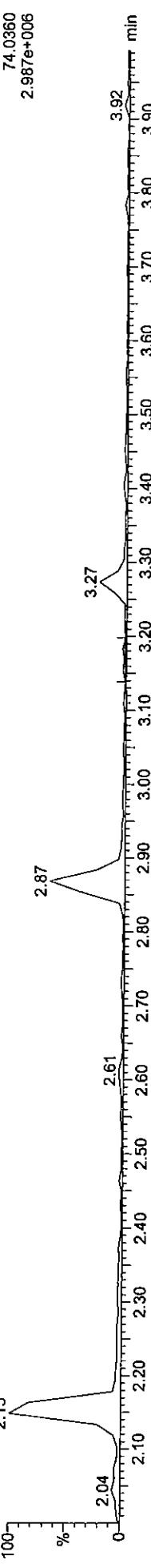
D8 naphthalene

kr23590017 Smooth(Mn,3x1)



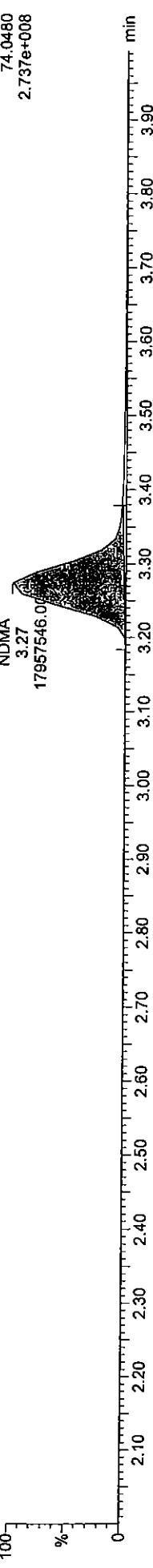
propyl ester

kr23590017



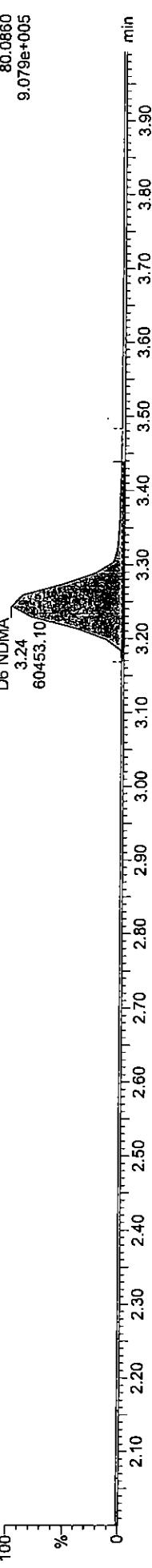
NDMA

kr23590017 Smooth(Mn,3x1)



D6 NDMA

kr23590017 Smooth(Mn,3x1)



000062

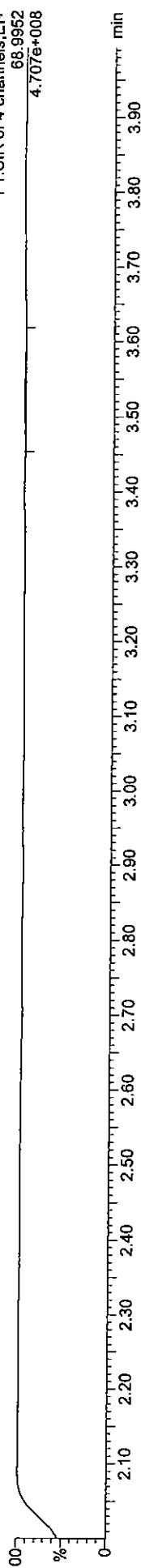
Quantify Sample Report

Printed: Thu Jun 05 16:45:51 2003, Page 12 of 13

Dataset: C:\MASSLYN\X\Default\pro\QuanlynxFiles\QC\Calibration\20030605\nitroscali_20030605.qld, Time: Thu Jun 05 16:42:48 2003

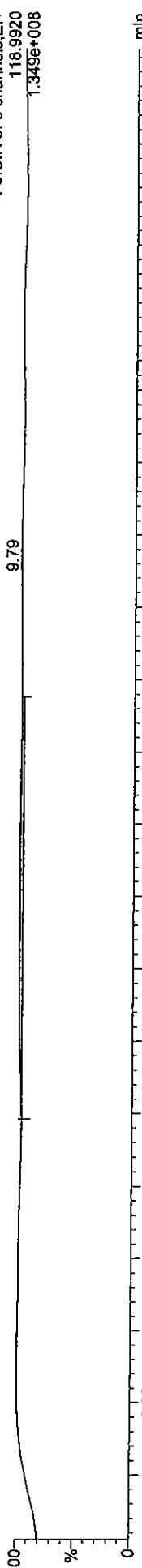
lock mass1

kr23590017 Smooth(Mn,3x1)



lock mass5

kr23590017 Smooth(Mn,3x1)



Compound Name	Trace	ABSTRESP	RT	%E%	ARE	MDL
1 NDMA	74.0480	17957546	3.27	2059132	2.96	1.456
2 D6 NDMA	80.0860	60453	3.24	8942	-8.76	0.095
3 D8 naphthalene	136.1128	1615288	9.42	25000	0.00	1.000
4 propyl ester	74.0360	2485	3.18	0	-85.13	2485...

000063

SECOND SOURCE CALIBRATION CHECK

000064

SECOND SOURCE CALIBRATION CHECK

Lab Name

Maxxam Analytics Inc.

Instrument:

Kratos HRGC/HRMS Calibration Date

2003/06/06

LAB FILE ID. KR23600006

Compound	REPORTED CONC. (ug/L)	ACTUAL CONC. (ug/L)	%D	% D LIMIT
NDMA	10.1	10.00	1	25

Compound	%RECOVERY
D6-NDMA	90

000065

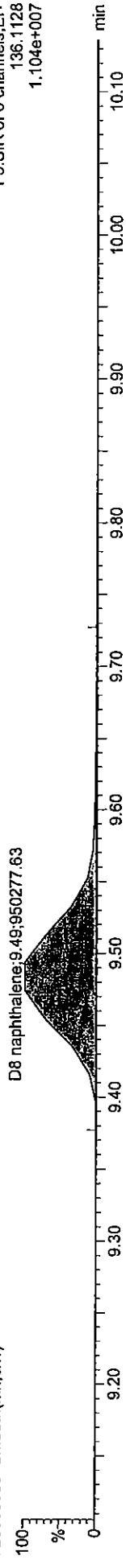
Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030606\2ndsource_20030606.qld, Time: Fri Jun 06 09:44:04 2003

Method: C:\MASSLYNX\Default\pro\METHODDB\nitros_EI.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default\pro\CURVEDB\nitroscali_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

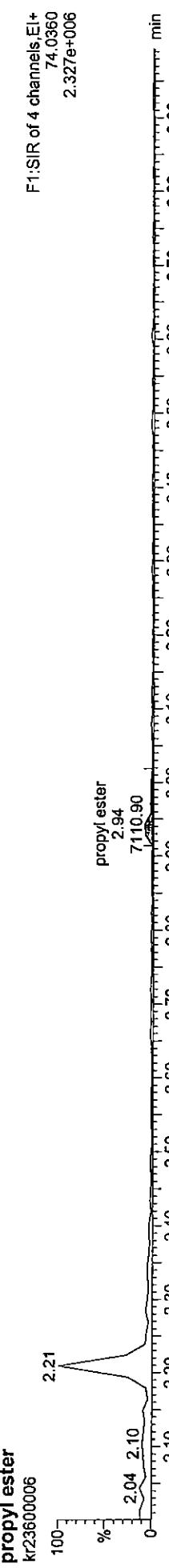
Name: kr23600006.*, Date: 06-Jun-2003, Time: 09:08:43, Job: , Description: 10.0ng/mL,72-24NDMW-1285

D8 naphthalene

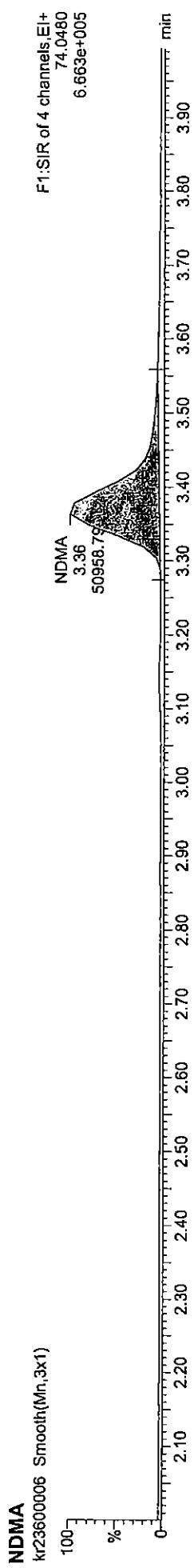
kr23600006 Smooth(Mn,3x1)

**propyl ester**

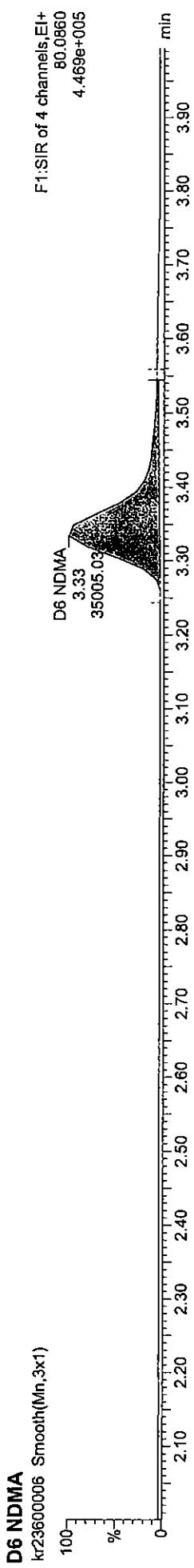
kr23600006 Smooth(Mn,3x1)

**NDMA**

kr23600006 Smooth(Mn,3x1)

**D6 NDMA**

kr23600006 Smooth(Mn,3x1)



000066

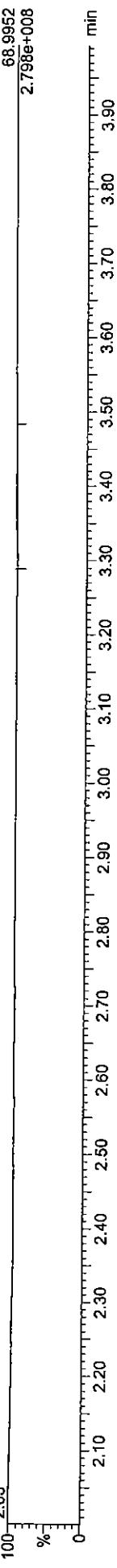
Quantify Sample Report

Printed: Fri Jun 06 09:45:51 2003, Page 2 of 3

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\2ndsource_20030606.qld, Time: Fri Jun 06 09:44:04 2003

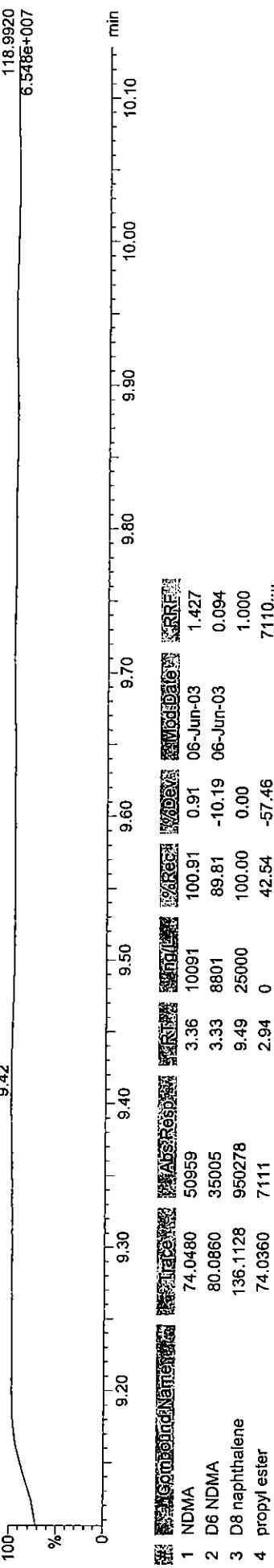
lock mass1

kr23600006 Smooth(Mn,3x1)
2.03



lock mass5

kr23600006 Smooth(Mn,3x1)
9.42



000067

Quantify Sample Report

Printed: Fri Jun 06 10:02:38 2003, Page 1 of 3

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\Threshold_20030606.qld, Time: Fri Jun 06 10:02:05 2003

Method: C:\MASSLYNX\Default.pro\MEITHDBnitos_EI.mdb, Time: Thu May 15 11:50:59 2003

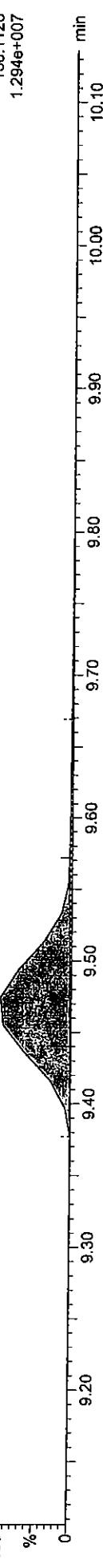
Calibration: C:\MASSLYNX\Default.pro\CURVEDBnitoscal_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600007.*, Date: 06-Jun-2003, Time: 09:24:39, Job: , Description: 1.0ng/ml,72-24NDMW-1286

D8 naphthalene

kr23600007 Smooth(Mn,3x1)

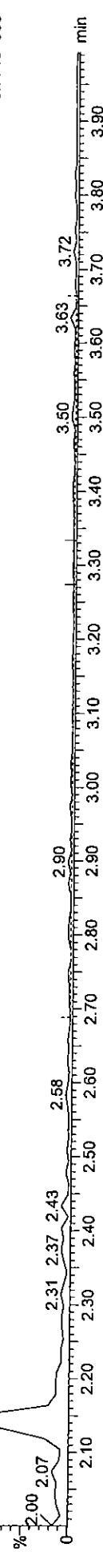
D8 naphthalene;9.47;1042572.25



Propyl ester

kr23600007

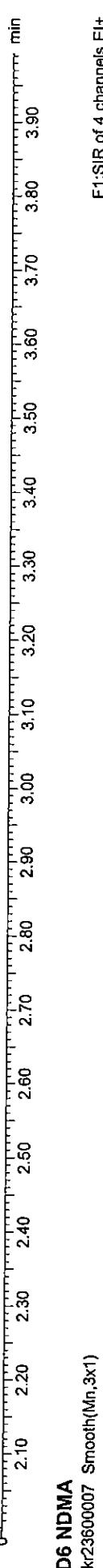
F5:SIR of 6 channels, EI+
136.1128
1.294e+007



NDMA

kr23600007 Smooth(Mn,3x1)

F1:SIR of 4 channels, EI+
74.0360
8.774e+005



D6 NDMA

kr23600007 Smooth(Mn,3x1)

F1:SIR of 4 channels, EI+
80.0860
4.485e+005



000068

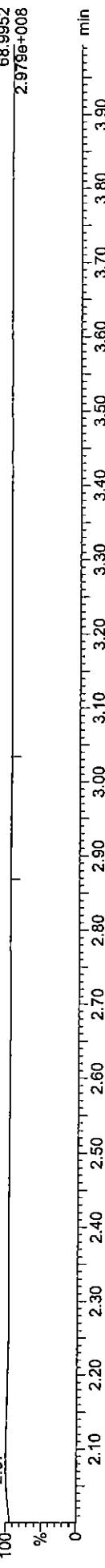
Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\Threshold_20030606.qid, Time: Fri Jun 06 10:02:05 2003

Printed: Fri Jun 06 10:02:38 2003, Page 2 of 3

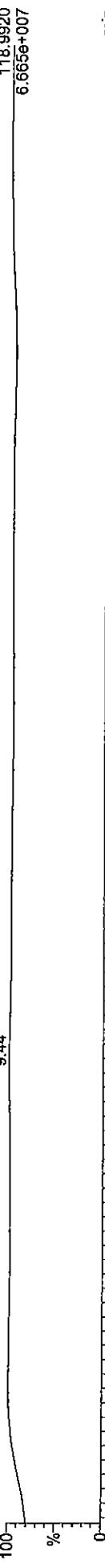
lock mass1

k\23600007 Smooth(Mn,3x1)
2.07



lock mass5

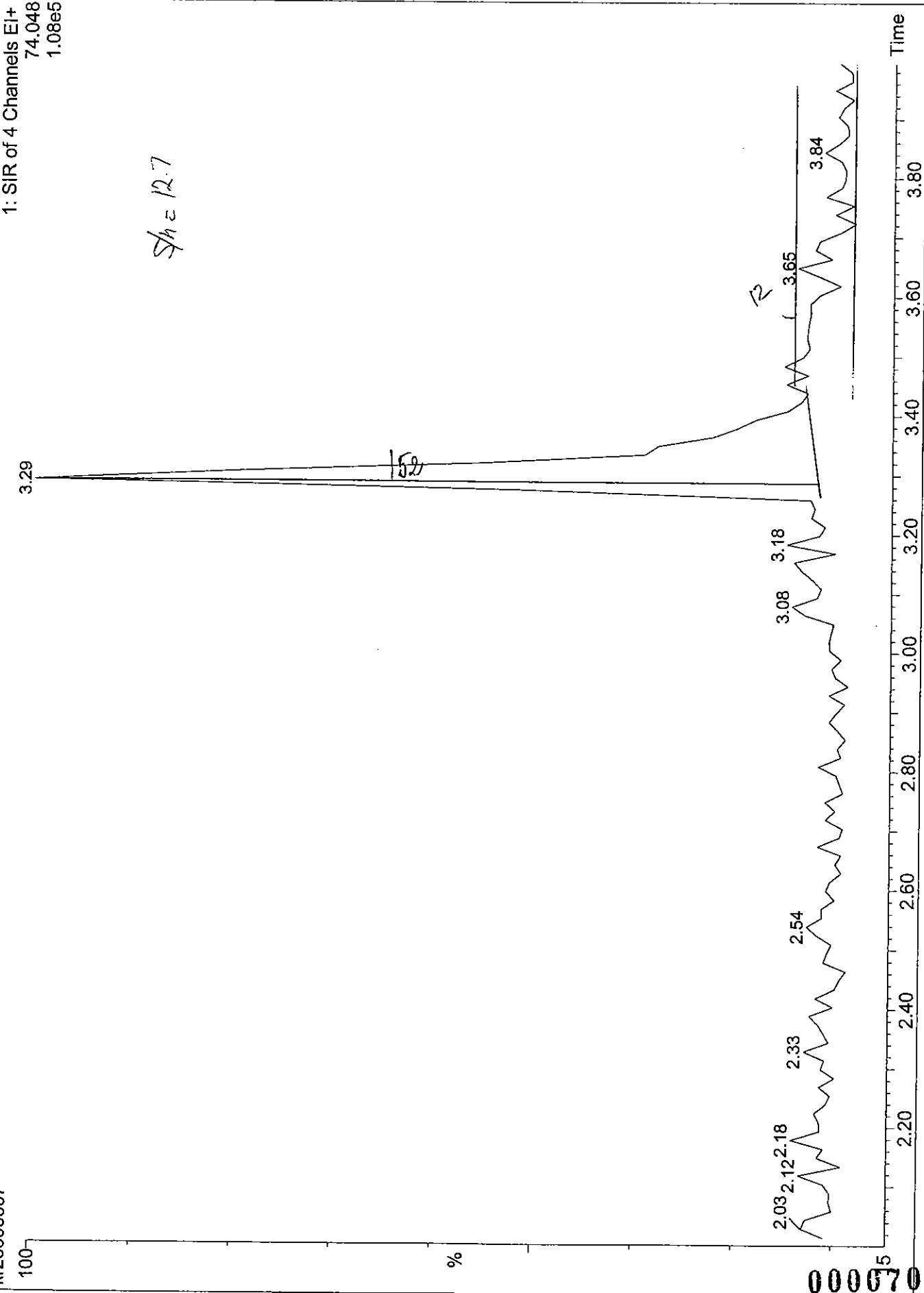
k\23600007 Smooth(Mn,3x1)
9.44



Sample/Compound Name	RT	RESIDUE	START	END	%RECD	%MGT.DEST	DMSO	%REMOVED
1 NDMA	74.0480	4010	3.30	778.10	06-Jun-03	1	1.414	
2 D6 NDMA	80.0860	35725	3.26	8186.80	83.54		1	0.105
3 D8 naphthalene	136.1128	1042572	9.47	25000.00	100.00	06-Jun-03	1	1.000
4 propyl ester	74.0360	424	3.29	0.03	2.54	06-Jun-03	1	16713.989

000069

1.0ng/mL, 72-24NDMW-1286
kr23600007



CONTINUING CALIBRATION

000671

CONTINUING CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.
Instrument: Kratos HRGC/HRMS Calibration Date 2003/06/06 Time 08:17:50

LAB FILE ID. KR23600004 CS4

Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.41	1.63	15	25
D6-NDMA	0.105	0.0970	7	25

000072

Quantify Sample Report

Printed: Fri Jun 06 09:20:19 2003, Page 1 of 3

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\Nitrosoconcal_20030606.qld, Time: Fri Jun 06 09:19:05 2003

Method: C:\MASSLYNX\Default.pro\METHDB\Nitros_EI.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDBNitroscall_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr2360004.* , Date: 06-Jun-2003, Time: 08:17:50 , Job: , Description: 200ng/mL,72-24NDMW-1284

D8 naphthalene

kr2360004 Smooth(Mn,3x1)

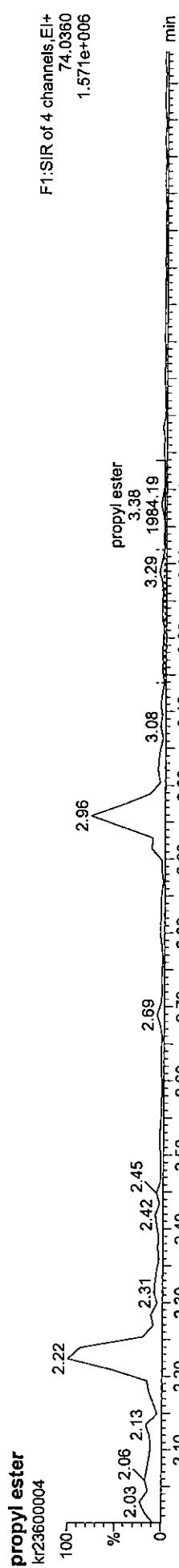
100%
0%



propyl ester

kr2360004 Smooth(Mn,3x1)

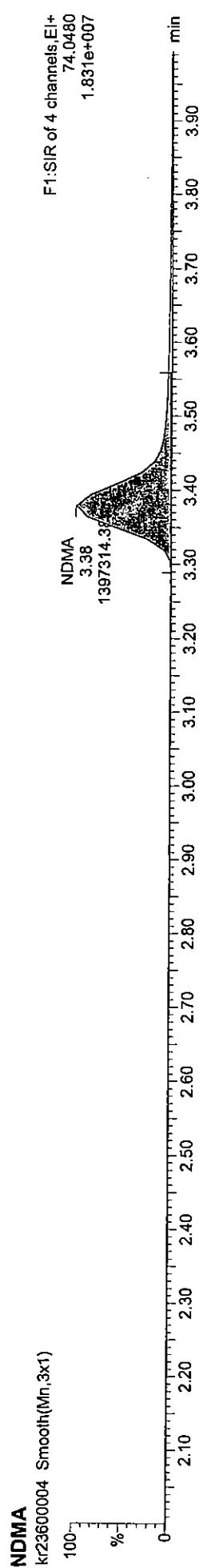
100%
0%



NDMA

kr2360004 Smooth(Mn,3x1)

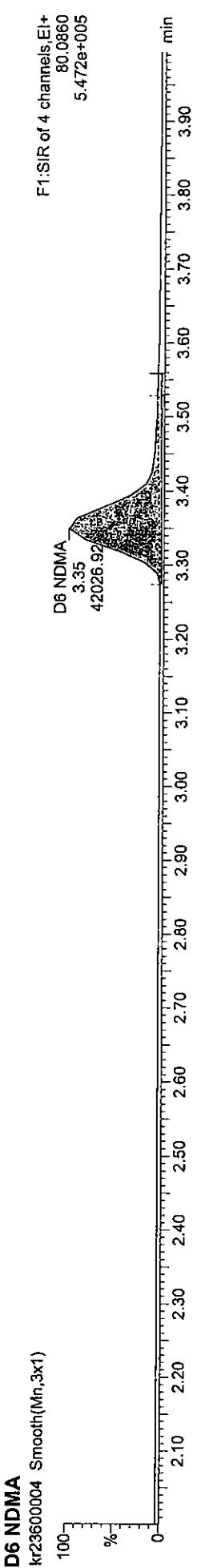
100%
0%



D6 NDMA

kr2360004 Smooth(Mn,3x1)

100%
0%

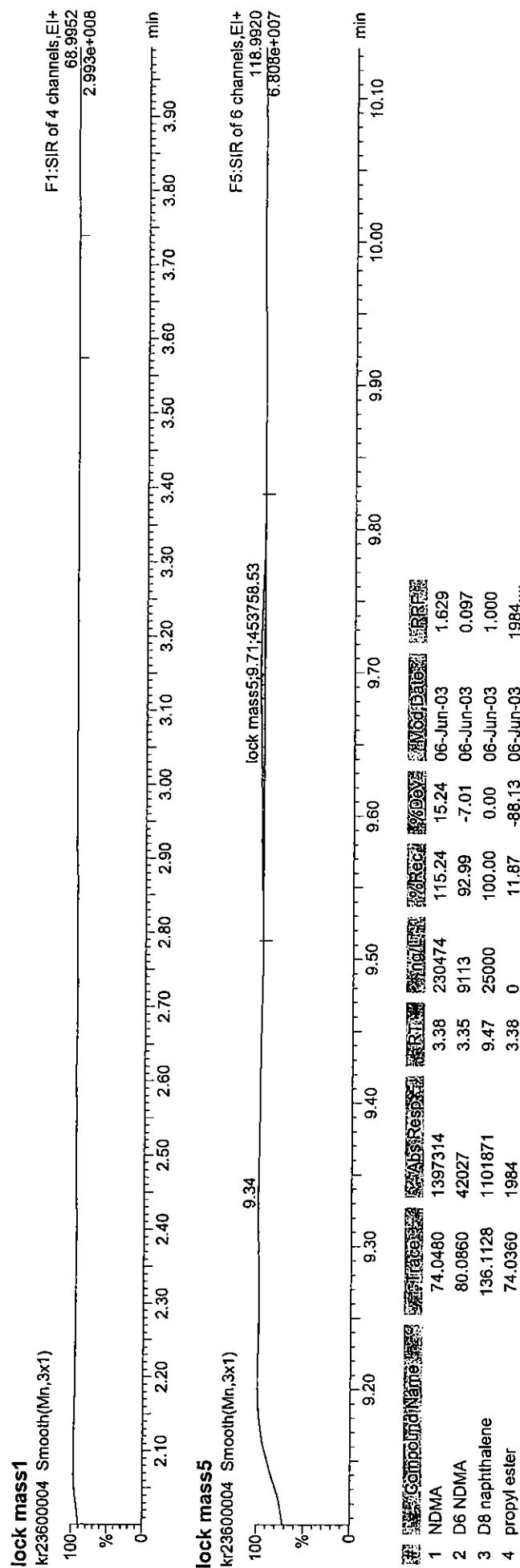


000073

Quantify Sample Report

Printed: Fri Jun 06 09:20:19 2003, Page 2 of 3

Dataset: C:\MASSLYN\X\Default\pro\QuanlynxFiles\QC\Calibration\20030606\nitrosoconcal_20030606.qld, Time: Fri Jun 06 09:19:05 2003



CONTINUING CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.
Instrument: Kratos HRGC/HRMS Calibration Date 2003/06/06 Time 10:19:19

LAB FILE ID. KR23600010 CS4

Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.41	1.54	9	25
D6-NDMA	0.105	0.0920	12	25

000075

Quantify Sample Report

Printed: Fri Jun 06 11:37:06 2003 | Page 1 of 3

Dataset: C:\MASSLYNX\Default\pro\QuarlynxFiles\QC\Calibration\20030606\nitrosoconcal_a_20030606.qid, Time: Fri Jun 06 11:30:41 2003

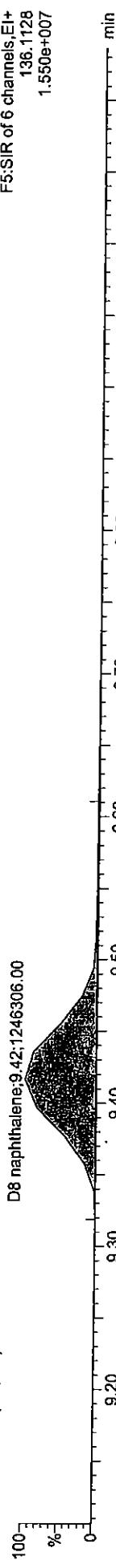
Method: C:\MASSLYNX\Default\pro\METHDB\nitros_EI.mdb, Time: Thu May 15 11:50:59 2003

Calibration: C:\MASSLYNX\Default\pro\CURVEDB\nitroscal_i_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600010.* , Date: 06-Jun-2003, Time: 10:19:19, Job: , Description: 200ng/ml,72-22NDMW-1276

D8 naphthalene

kr23600010 Smooth(Mn,3x1)



Propyl ester

kr23600010



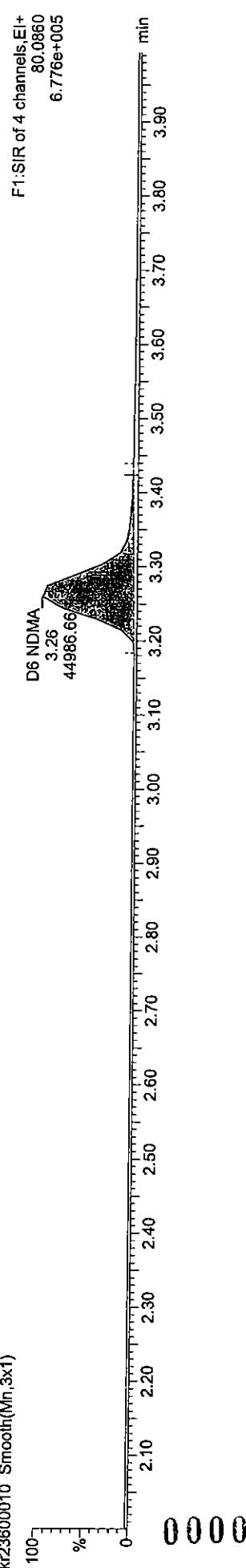
NDMA

kr23600010 Smooth(Mn,3x1)



D6 NDMA

kr23600010 Smooth(Mn,3x1)

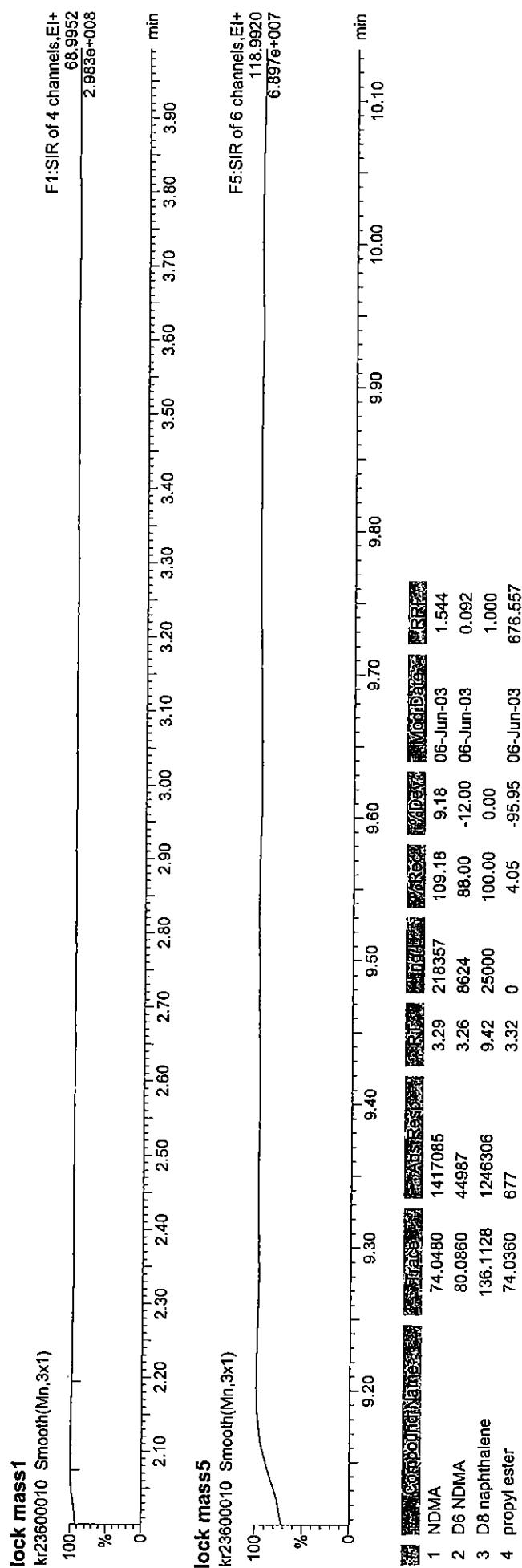


000076

Quantify Sample Report

Printed: Fri Jun 06 11:37:06 2003, Page 2 of 3

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\Nitrosoconcal_a_20030606.qld, Time: Fri Jun 06 11:30:41 2003



000077

CONTINUING CALIBRATION CHECK

Lab Name

Maxxam Analytics Inc.

Instrument:

Kratos HRGC/HRMS

Calibration Date

2003/06/06

Time

12:49:57

LAB FILE ID. KR23600018 CS4

Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.41	1.59	12	25
D6-NDMA	0.105	0.0980	7	25

000078

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuanlynxFiles\QC\Calibration\20030606\nitrosoconcalb_20030606.qld, Time: Fri Jun 06 13:53:09 2003

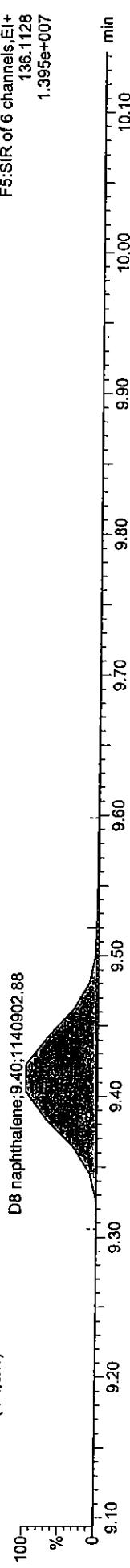
Printed: Fri Jun 06 13:54:25 2003, Page 1 of 3

Method: C:\MASSLYNX\Default.pro\METHDB\nitros_EI.mdb, Time: Thu May 15 11:50:59 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\nitroscali_20030605.cdb, Time: Thu Jun 05 16:42:48 2003

Name: kr23600018.* , Date: 06-Jun-2003, Time: 12:49:57, Job: , Description: 200 ng/mL,72-24NDMW-1284

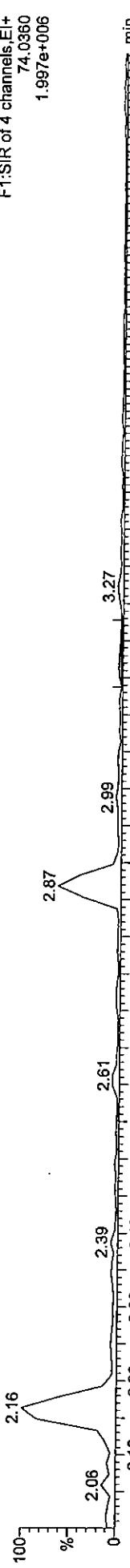
D8 naphthalene

kr23600018 Smooth(Mn,3x1)



Propyl ester

kr23600018 Smooth(Mn,3x1)



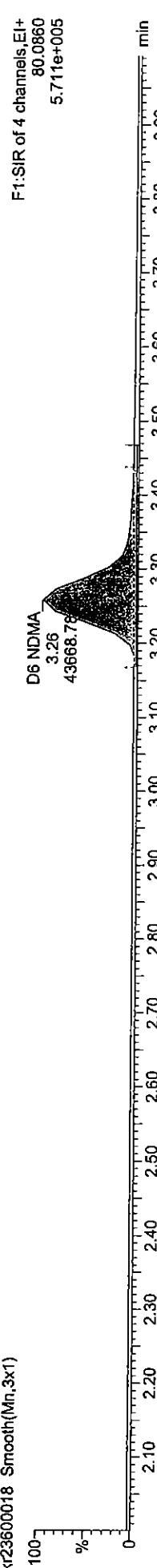
NDMA

kr23600018 Smooth(Mn,3x1)



D6 NDMA

kr23600018 Smooth(Mn,3x1)

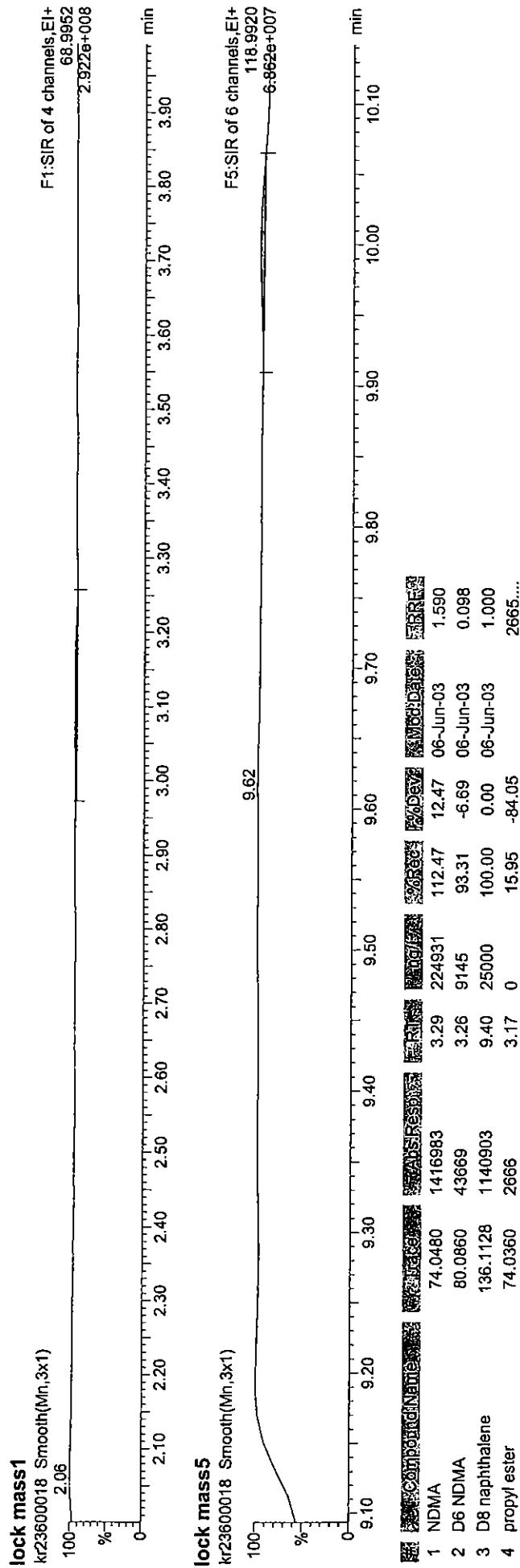


000079

Quantify Sample Report

Printed: Fri Jun 06 13:54:25 2003, Page 2 of 3

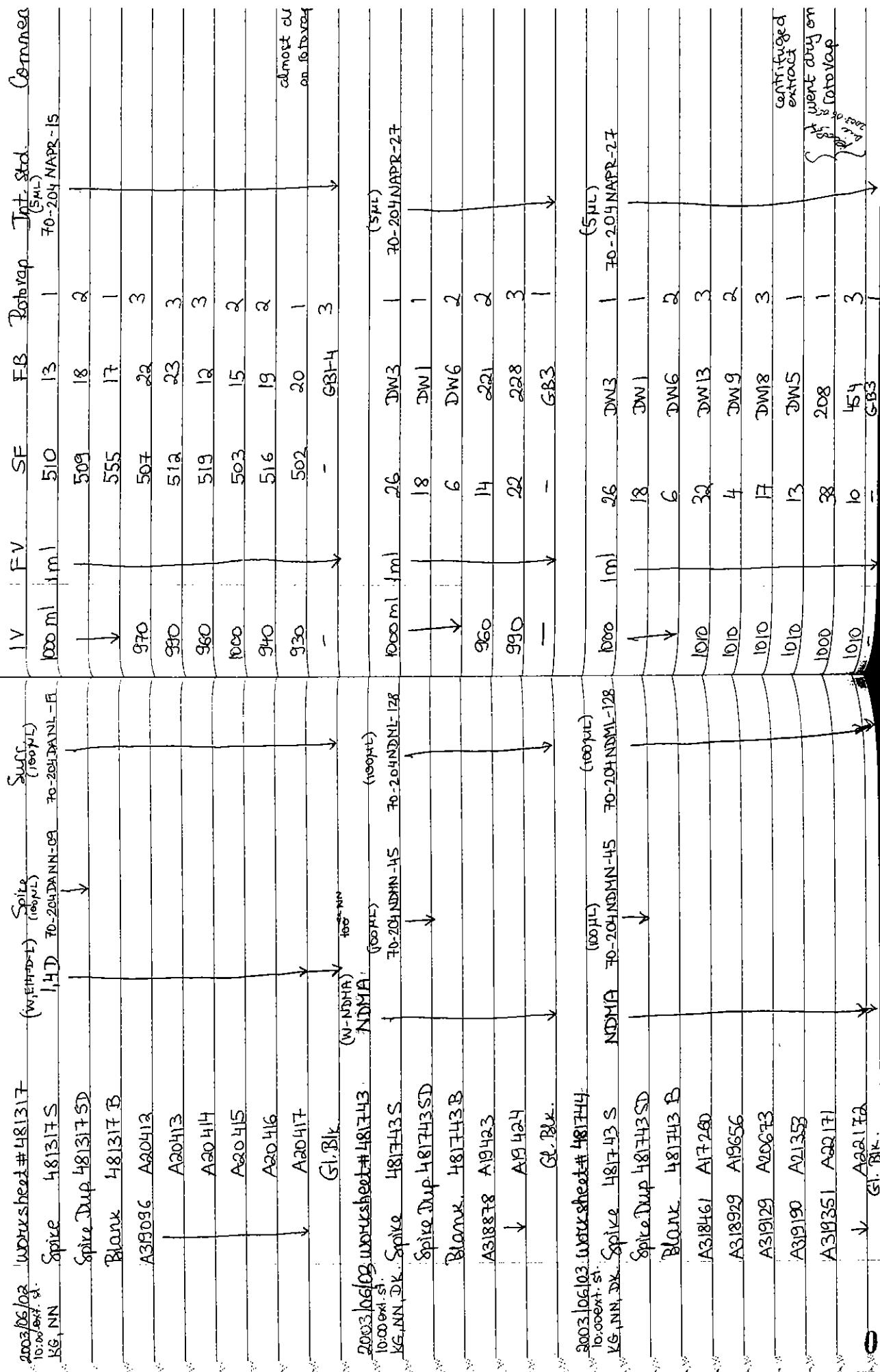
Dataset: C:\MASSLYNX\Default\pro\QuanlynxFiles\QC\Calibration\20030606\nitrosoconcalb_20030606.qld, Time: Fri Jun 06 13:53:09 2003



000080

SAMPLE PREPARATION RECORDS

000081



INSTRUMENT LOG

000083

K

K 2357 13 480635 flamer, N, 1,2

K
flame blower, N, 1,2 (2008/05/30)

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

K

Kr 2359	15	80 ng/ml	72 - 24 N.D.M.W - 1275	IC
16	1000 ng/ml	72 - 24 N.D.M.W - 1277	IC	
17	2000 ng/ml	72 - 24 N.D.M.W - 1278	IC	
18	5cm blank		IC	
19	5cm blank		IC	
20	1.0 ng/ml	72 - 24 N.D.M.W - 1285	IC	
21	1.0 ng/ml	72 - 24 N.D.M.W - 1286	IC	
22	10 ng/ml	72 - 24 N.D.M.W - 1285	IC	
23	480 635, spike, N ₁ , 1, 2	IC	After sampler Topiced, no data acquired	
24	480 635, A16037-02R, N ₁ , 1, 2	IC		
 2003/06/16				
Kr 2360	01-03	1.0ng/ml	Accuracy for nitro	IC
04	200 ng/ml	12-24 N.D.M.W - 1284	IC	
05	5cm blank		IC	
06	10 ng/ml	72 - 24 N.D.M.W - 1285	IC	
07	1.0 ng/ml	72 - 24 N.D.M.W - 1286	IC	
08	480 635, A16037-02R, N ₁ , 1, 2	IC	A 32188	
09	480 635, A16040-01R, N ₁ , 1, 2	IC	↓	
10	200 ng/ml	72 - 24 N.D.M.W - 1284	IC	
11	481 743, spike, N ₁ , 1, 2	IC		
12	spike 0 1, 1, 2	IC		
13	blank, N ₁ , 1, 2	IC		
14	glass blank 200 3/06/03, N ₁ , 1, 2	IC	A 318 946	
15	481 755, A19X723-Q2R, N ₁ , 1, 2	IC	A 318 878	
16	481 743, A19423-D1R, N ₁ , 1, 2	IC	↓	
17	A 19424-D1R, N ₁ , 1, 2	IC		

Kf 2360 8 200 neg/mi $\tau_2 - \frac{1}{2} \tau_4$ vdmw-1284
 Kf A318127
 17 180638 A 15759 - 01 R , N, 1, 2
 20 ↓ A 16881 - 01 R , N, 1, 2
 Kf A318380
 21 481744 A 17260 - 01 R , N, 1, 2
 Kf A318461
 22 ↓ A 19656 - 02 R , N, 1, 2
 Kf A318229
 23 ↓ A 90673 - 01 R , N, 1, 2
 Kf A319129
 24 ↓ A 21353 - 01 R , N, 1, 2
 Kf A319190
 25 200 neg/mi $\tau_2 - \frac{1}{2} \tau_4$ vdmw-127584
 Kf no file

STANDARDS PREPARATION RECORDS

000087

190							19
Date	Lot #	Frst. ward	Initial conc.	Final conc.	Start time	End time	Comments
2003/02/26	70-188NDMN-40	1mL	2000ng/ml	10mL	METH	10-190NDMN-41	2000 ng/ml added 10/26/03 1/2 NITROS
	70-190NDMN-41	250µL	2000ng/ml	10mL	METH	10-190NDMN-42	50 ng/ml 2003/02/26 1/2 NITROS LAB SPKE
	70-190NDMN-41	250µL	2000ng/ml	10mL	METH	10-190NDMN-42	50 ng/ml 2003/02/26 1/2 NITROS SPKE
	70-190NDMN-42	100µL	50 ng/ml	10mL	METH	70-190NDMN-1192	5.00 ng/ml 2003/03/26 added: 5µL 10-TNTAPES-20 10µL 10-182NOM-120 Method Spike to rest recd start's
	70-190NDMN-42	100µL	50 ng/ml	10mL	METH	70-190NDMN-1193	↓
2003/02/26	13LC50602	100mL	100ng/ml	100mL	ACETONE	70-190NDMN-259	1/2 mg/ml 2003/08/26
						-260	
						-261	
						-262	
						-263	
						-264	
						-265	
						-266	
						-267	
						-268	
						-269	
2003/02/27	70-190NDMN-41	100mL	2000ng/ml	1mL	DAM	70-190NDMN-194	200 ng/ml 2003/03/27 added in each; 2mL 10-TNTAPES-20 10µL 10-182NOM-120
	70-190NDMN-39	100µL	100 ng/ml	1mL	DAM	70-190NDMN-195	10 ng/ml ↓
	70-190NDMN-195	100µL	100 ng/ml	1mL	DAM	70-190NDMN-196	1.0 ng/ml ↓
2003/02/27	MCBS0898	100mL	100ng/ml	10mL	Acetone Chlorophenols Sur.	70-190CPH4-12	1mg/L 2003/08/27
2003/02/27	MCBS0199	100mL	100ng/ml	10mL	Acetone Chlorobenzenes Sulf.	70-190CPH4-12	1mg/L 2003/08/27
2003/02/27	CPS9708	100mL	100ng/ml	10mL	NaOH Chlorophenols Spke.	70-190CPH4-207	1mg/L 2003/08/27
2003/02/27	CBS9708	100mL	100ng/ml	10mL	Chlorobenzenes Spke	70-190CPH4-07	1mg/L 2003/08/27
	MAX-SOL-4	1	1	1		↓	
	PP160 STOCK	400µL	400ng/ml	10mL	Aerofine	10-19016IN-02	10/15/02 2003/08/27
2003/03/03	10-19016IN-02	1mL	10/50/100	10 mL	Aerofine	10-19016IN-13	1/5/10 2003/09/03
2003/03/05	687ALCS0990	50µL	1µg/mL	25mL	Aerofine	10-19016IN-02	2ng/mL 2003/09/05

Ant.	Lot #	Antibody used	Initial conc.	Final conc.	Solvent	Excipient	Code	Initial conc.	Expiry date	Concentrations	Initial conc.	
2003/04/13 0	Ultra screwtac Q-1212	15% 200	1 ml	1000 ng/ml	5 ml	DCM	08-methylacetone 2:1 v/v	70-204 NAPP-15	2003/10/30	use 5 ml	OK	
2003/04/15 0	Ultra screwtac S1116	1.5 ml	100 ng/ml	10 ml	MeOH	1,4-Dioxane 5%	70-204 NAPP-09	15 mg/ml	2003/10/30	use 100%!	OK	
2003/04/15 0	CIL QM-28 15% 18-17	0.1018 g	nest	10 ml	MeOH	0.1% DMSO intermediate stock	70-204 DAUW-17	10.18 mg/l	2003/10/30	use as stock	OK	
2003/04/15 0	70-204 DANFL-17	125 ml	10180 ng/ml	10 ml	MeOH	0.1% DMSO intermediate stock	70-204 DANFL-18	177.25 mg/l	2003/10/30	use as intermediate	OK	
2003/04/15 0	70-204 DANFL-18	1.0 ml	127.25 ng/ml	10 ml	MeOH	0.1% DMSO surrogate	70-204 DANFL-19	12.73 mg/l	2003/10/30	use 100%!	OK	
2003/04/20	13LC50602	100% v/v	100/600 ng/ml	10 ml	ACD/0E	70-204 CBLCTE	70-204 1612C-291	1/2 mg/ml	2003/09/30	use 1.0 mc	10	
								100/600 ng/ml	2003/09/30			
								70-204 1612-292				
								70-204 1612-293				
								70-204 1612-294				
								70-204 1612-295				
								70-204 1612-296				
2003/04/30	ultra R12/12	50 µl	1000 ng/ml	10 ml	DCM	NaOH 0.8% int. std.	70-204 NAPK-27	5 mg/ml	2003/17/30	use 5 ml	OK	
2003/05/01	70-162 NAPL-04	100 µl	9.8 ng/ml	10 ml	MeOH	NaOH 0.8% inter.	70-204 NAPL-127	9.8 ng/ml	2003/08/01	use 100 ml	OK	
		↓	↓	↓	↓	↓	70-204 NAPL-128	↓	↓	↓	↓	
2003/05/01	70-190 NAMIN-41	2.5 µl	2000 ng/ml	10 ml	MeOH	NaOH 0.8% intercalins	70-204 NAMIN-45	50 ng/ml	2003/08/01	use 100 ml	OK	
2003/05/05	70-190 NAMIN-42	100 µl	50 ng/ml	1 ml	DCM	intercalins working std.	70-204 NAMIN-1246	5.0 ng/ml	2003/05/14	use each 100 ml - 26	IC	
	70-190 NAMIN-41	25 µl	2000 ng/ml					1947	50 ng/ml	2003/06/05		
		40 µl						1248	50 ng/ml			
		100 µl	↓					1249	200 ng/ml			
		100 µl						1250	1000 ng/ml			
		50 µl	20,000 ng/ml					1251	2000 ng/ml	2003/06/05		
	70-188 NAMIN-40	50 µl						1252	10.0 ng/ml			
	70-188 NAMIN-46	100 µl	100 ng/ml					1253	1.0 ng/ml			
	70-184 NAMIN-38	500 µl	2000 ng/ml	10 ml	MeOH	intercalins working std.	70-204 NAMIN-46	100 ng/ml	2003/08/06	added to 200 ml 10% 1986EM-15	IC	
2003/05/05	70-198 GEMIN-11	10 µl	500 ng/ml	1 ml	DCM	working std.	70-204 GEMIN-157	5.0 ng/ml	2003/06/05	10% 1986EM-15 10% 1986EM-15	IC	
		50 µl						158	25 ng/ml			
		100 µl	↓					159	50 ng/ml			

DATE	LOT #	INITIAL CONC USED	FINAL VOLUME	SOLVENT	UV/E	CODE	COMBINE DATE		COMMENTS
							FINAL CONC	TIME CONC	
2003/05/27	13LGS0602	100 μ L	100 μ L	ACETONE	10-22-6TC-311	1/2 200 mg/L	2003/11/27	4.80 1.0 ng/L	U'
2003/05/27	10-19NDMN-4	250 μ L	2000 μ L	ACETONE	10-22-NDMN-467	50 ng/mL	2003/10/26	0.4125 NITRO NITROG 29.4%	He
	10-22NDMN-47	100 μ L	50 μ g/mL	DCM	10-22-NDMN-473	5.0 ng/mL	2003/10/27	4.80 added: 70-19% NAP-26 pH: 70-19% NAP-26 pH: 70-19% NAP-26	He
	10-19NDMN-44	2.5 μ L	2000 μ L			1274 50 ng/mL			
		40 μ L				1275 80 ng/mL			
		100 μ L				1276 200 ng/mL			
	70-188NDMN-40	50 μ L	20,000 μ L			1277 1000 ng/mL			
		100 μ L				1278 2000 ng/mL			
	70-204NDMN-46	100 μ L	100 μ L			1279 10.0 ng/mL			
		100 μ L	10 ng/mL			1280 1.0 ng/mL			
	70-22-NDMN-1029	100 μ L							
2003/05/17	70-162NDMSL-04	100 μ L	9.8 μ g/mL	DCM	70-22-NDMSL-049	98 ng/mL	2003/11/104		He
2003/05/21	70-2040ANL-18	1.0 mL	127.25 μ L	10 mL	MECH	1.4 Dioxane surrogate	72-22-DANL-20	1.2 7.3 mg/L	use 100% ligands, 1st for solids
2003/05/28	70-2040ANL-15	50 μ L	200 mg/mL	10 μ L	DCM	1.4 Dioxane	1000 mg/L	2003/10/30	OK
	70-2040ANL-18	100 μ L	127.25 μ L			1.4 Dioxane	1273 mg/L		LEVEL ONE
	70-2040ANL-09	100 μ L	15 μ sL			1.4 Dioxane	150 mg/L		OK
	70-2040ANL-15	50 μ L	200 mg/mL	10 μ L	DCM	1.4 Dioxane	1000 mg/L	2003/10/30	OK
	70-2040ANL-18	100 μ L	127.25 μ L			1.4 Dioxane	1273 mg/L		LEVEL TWO
	70-2040ANL-09	500 μ L	15 μ sL			1.4 Dioxane	750 mg/L		OK
	70-2040ANL-15	50 μ L	200 mg/mL	10 μ L	DCM	1.4 Dioxane	1000 mg/L	2003/10/10	OK
	70-2040ANL-18	100 μ L	127.25 μ L			1.4 Dioxane	1273 mg/L		LEVEL THREE
	70-2040ANL-09	500 μ L	15 μ sL			1.4 Dioxane	1500 mg/L		OK
	S-1116	150 μ L	100 μ sL			1.4 Dioxane			LEVEL FOUR
2003/05/28	70-2040ANL-15	50 μ L	200 mg/mL	10 μ L	DCM	1.4 Dioxane	1000 mg/L	2003/10/10	OK
	70-2040ANL-18	100 μ L	127.25 μ L			1.4 Dioxane	1273 mg/L		LEVEL FIVE
	S-1116	300 μ L	100 μ sL			1.4 Dioxane	3000 mg/L		OK
	70-2040ANL-15	50 μ L	200 mg/mL	10 μ L	DCM	1.4 Dioxane	1000 mg/L	2003/10/30	OK
	70-2040ANL-18	100 μ L	127.25 μ L			1.4 Dioxane	1273 mg/L		LEVEL FIVE
	S-1116	600 μ L	100 μ sL			1.4 Dioxane	6000 mg/L		OK

24

25

Date	Set #	First add	Final conc	Initial conc	Final vol	Reagent	Code	Final conc	Expire date	Comments	Initials
2003/06/03	70-204 N0MIN-46	100µL	100ng/ml	100µL	0.01mL	2nd trace nitrobenzene	70-24 N0MIN-1281	10ng/ml	2003/07/03	4 each week: 70-23 N0ML-129 70-24 N0ML-129 5 mL	RP
↓	70-24 N0MIN-1281	100µL	100ng/ml	100µL	0.01mL	Threshold nitrobenzene	70-24 N0MIN-1282	1.0 ng/ml	↓	↓	↓
2003/06/03	70-162 NDMSL-04	100µL	9.8ng/ml	10mL	HeOH	N.D.A. 6.6% var.	70-24 NDML-130	98ng/mL	2003/09/03	use 100mL	KH
↓	↓	↓	↓	↓	↓		70-24 NDML-131	↓	↓	↓	↓
2003/06/04	70-22 N0MN-47	100µL	50ng/ml	1mL	10mL	Nitrobenzene working sol	70-24 NDML-1283	5.0 ng/ml	2003/07/04	4 each week: 70-23 N0ML-129 70-24 N0ML-129 5 mL	RP
↓	70-190 N0MIN-41	100µL	2000ng/ml	100µL	100µL	2nd trace nitrobenzene	70-24 N0MIN-1284	200 ng/ml			
↓	70-204 N0MIN-46	100µL	100ng/ml	100µL	100µL	Threshold nitrobenzene	70-24 N0MIN-1285	10.0 ng/ml			
↓	70-24 N0MIN-1285	100µL	10ng/ml	100µL	100µL		70-24 N0MIN-1286	1.0 ng/ml			
2003/06/09	13 LC50 6.02	100µL	10000ng/ml	10mL	acetone	1/2 acetone	70-24/16TL-3/12	1/2 mg/ml	2003/09/09	use 1.0 mL	VR
↓	↓	↓	↓	↓	↓		70-24/16TL-3/13				
↓	↓	↓	↓	↓	↓		70-24/16TL-3/14				
↓	↓	↓	↓	↓	↓		70-24/16TL-3/15				
↓	↓	↓	↓	↓	↓		70-24/16TL-3/16				

CHAIN OF CUSTODY DOCUMENTATION

000093

Report Name: Entry

Job #: A318878

Page #: 1

Client: APPLIED P & CH LABORATORY
13769 MAGNOLIA AVE
CHINO CA
USA 91710-7018

Inv Attn: Kenny Chan

Printed: 2003/05/29 Version 1
Reception Date: 2003/05/29
Reception Time: 13:48
Login Date: 2003/05/29
REQUIRED DATE: 2003/06/19
Quote Number: A20018

Report: same

Attention: Kenny Chan
Phone: (909) 590 - 1828 Ext:
Fax: (909) 902 - 1661

P.O. Number:
Project Number: JPL

Project Coordinator: AGY

Client Number: 9417
Rpt Address #:
Q.C. Samples: No

Maxxam Client
Number Sample ID
A19423-01R MW-13
A19424-01R MW-16

Cont's	Store Recd.		Sampling		Test Codes
	Code	OK	Date	Matrix	
2-ILAG	WWI	Yes	2003/05/27	LIQ	W-NDMA-L
2-ILAG	WWI	Yes	2003/05/27	LIQ	W-NDMA-L

Remarks: LEVEL 5 AND EDD REQUIRED

Quote Remarks:

EPA Level 4 reporting (15% surcharge).
For Extract & Hold samples, charge U\$175

000094

Applied P & Ch Laboratory

Subcontract Chain of Custody

13760 Magnolia Ave. Chino CA 91710
 Tel: (909) 590-1828 Fax: (909) 590-1498

Please Print in pen Page _____ of _____

Subcontract Lab: Morgan Analytical Lab Contact: Ann Swartzsky Tel #: (519) 747-2575 Fax #:

Address: 50 Bathurst Dr. #12 City: Waterloo State: ONT Zip code:

APCL Client: O3 - 3393 APCL Contact: Kenny Chan

Project Name/Code: TPL Job #:

BILL TO APCL Sub Quotation #:

Due Date: regular rush: _____ days _____ hours Sampled by: Lee Williamson

Field Sample ID No. Sample Description Date Time Collected Sample Matrix Preser-vation # of Containers Remarks

MW-13 5/21/03 0830 AM — 2 X Level 5 +

MW-10 5/21/03 1050 AM ↓ — 2 X EDD

625m (NDMA)

1000

1050

1100

1150

1200

1250

1300

1350

1400

1450

1500

1550

1600

1650

1700

1750

1800

1850

1900

1950

2000

2050

2100

2150

2200

2250

2300

2350

2400

2450

2500

2550

2600

2650

2700

2750

2800

2850

2900

QC Requirement: Regular; QA/QC Report; WIP; Raw Data; Extended Raw Data CLP; ACE AFCEE NEESA _____ (E, C or D); Other _____ (Please specify)

Sample Disposal: Return Disposal by APCL Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: Intact; Broken. Cooler Seal: Intact; Broken; None. Tag #: _____ Temperature: Room. Cold (°C).

Relinquished by John Date/Time 5/28/03 1600 Received by John Clark Date/Time 5/28/03 1700

Relinquished by John Date/Time 5/28/03 1600 Received by John Clark Date/Time 5/28/03 1700

APCL USE ONLY Service # _____ Note: _____

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

SAMPLE RECEIPT RECORDShipment #83806 821403 Courier Company FedExDate Received 2003/05/29Assigned Job # A318878Client Name APCHProject # JPL***Verification of Sample conditions***

OBSERVATION	YES	NO
Were custody seals on the outside of the cooler?	✓	
Was the Chain of custody inside the cooler?	✓	
Was the Chain of Custody properly filled out?	✓	
Was ice or ice packs used to keep samples cool?	✓	
Enter Temperature of the cooler or blank.	Temp ✓	
Was the temperature acceptance limit of <8 c met?	0.1 ° ✓	
Were the sample containers in good condition?	✓	

*If the answer to any of the questions above is NO, a sample exceptions report must be completed.*A Scunzak
Observations made by
Sample Reception2003/05/29
Date**Maxxam Analytics Inc**
50 Bathurst Dr, Unit #12
Waterloo, ON
N2v 2C5
1 519 747 2575 ext.21

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar 91765

Tel: (909)396-7662 Fax: (909)396-1455

APCL Analytical Report

Service ID #: 801-032937

Received: 04/28/03

Collected by:

Extracted: N/A

Collected on: 04/28/03

Tested: N/A

Reported: 05/28/03

Sample Description: Water

Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result
			MW-17-4 03-02937-1	

NITROSAMINES BY HRMS ^(a)

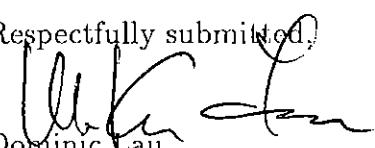
PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "—" Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

(a) Subcontracted to Maxxam Analytics Inc. See attached.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

GEOFON

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-17 0024

IN CORP RATE
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-6662 • FAX (909) 396-1455

GEOFON LAB COORDINATOR

ITEM	SAMPLE IDENTIFIER	MATRIX	DATE	TIME	PRESERVED	# OF CONT.	QC LEVEL	T.A.T.	ANALYSES	COMMENTS
1	MW-17-4	H ₂ O	4/28/03	9:50	None	2L + 2L	III	NORMAL	X X	
2										
3										
4										
5										
6										
7										
8										
9										
10										

SAMPLES COLLECTED BY: Lea W. Williamson

RE-INVESTIGATED BY:

Lea W. Williamson

Lea W. Williamson

RECEIVED AT:

DATE:

TIME:

COOLER TEMPERATURE UPON RECEIPT

SAMPLE'S CONDITION UPON RECEIPT

Applied P & Ch Laboratory

13780 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-02937 (0470_ 135) (2202777_ 135)

04/28/03

Part 1: General Information

<input type="checkbox"/> Company Information	Name:	GEOFON, Inc.
	Address:	22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765
<input type="checkbox"/> Project Information	Project Description:	JPL
	Project #:	04-4428.10
<input type="checkbox"/> Billing Information	P.O. #:	
	Bill Address:	22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765
	Lab Project ID:	
	Client Database #:	3
<input type="checkbox"/> Receiving Information	Who Received Sample?	Kenny Chan
	Receiving Date/Time:	04/28/03 1510
	COC No.	
<input type="checkbox"/> Shipping Information	Shipping Company	APCL pick up
	Packing Information:	Cooler/Ice Chester
	Cooler Temperature:	3.8 4.2 °C
<input type="checkbox"/> Container Information	Container Provider:	Client
<input type="checkbox"/> Sampling Information	Sampling Person:	
	Sampling Company:	Client
<input type="checkbox"/> Turn-Around-Time Option:	Rush 5 working day(s)	
<input type="checkbox"/> QC Option:	NEESA C	
<input type="checkbox"/> Disposal Option:	Not specify	

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days
1	MW-17-4	NDMA	03-02937-1	W	G	1000	2	G	042803	N	0	6 <input type="checkbox"/>

Part 3: Analysis Information

Test Items: Customized-13, Sub-contract

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	CUSTOM
1	MW-17-4	NDMA	03-02937-1	W	X <input type="checkbox"/>

Login By En-Yu Paul Kou

Check By PK